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HYPERTELORISM

REPORT OF FOUR CASES *

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Hypertelorism is probably more common than reports indicate, and many readers may recall characteristic facies in their clinical experience. Reported cases are, however, rare. I have found only thirteen cases in the literature and hence am reporting four recently observed in the pediatric service of the University of California.

In 1890, Fridolin [1] of St. Petersburg described a plagiocephalic skull that was probably a unilateral hypertelorism. However, the identity of this condition was not established until 1924, when Grieg [2] of Edinburgh first described the complete clinical and pathologic picture to which he applied the term hypertelorism. Subsequent cases have been reported from Great Britain, though the tenth and eleventh cases were reported from France and the United States, respectively.

Hypertelorism is a developmental, congenital anomaly of the lesser wings of the sphenoid bone. Owing to the excess growth of these wings the orbits are widely separated and the horizontal axes of the eyes are directed in a more lateral direction than is normal. There is a familial tendency to this orbital spacing and, in persons with hypertelorism, mental deficiency is often associated. Little is known of the etiology and control of many congenital anomalies, but hypertelorism has a definite explanation which helps to clear up one of the many problems of developmental defects.

REPORT OF CASES

CASE 1.—*History.*—R. G., a girl, aged 20 months, American, (fig. 1), was brought to the clinic for a routine examination including a blood Wassermann test. The mother had not noted anything abnormal in the child's condition other than the bilateral elevation of the shoulders and the abnormal separation of the eyes. The father, a chronic alcoholic addict with a positive blood Wassermann reaction, was confined to a state mental hospital. The mother and three sisters were living and well, their blood Wassermann reactions were negative, and there had been no miscarriages, stillbirths, mental diseases or other stigmas. The patient was a full term, normally delivered 8 pound (3.6 Kg.) infant. The mother noticed the facies but stated that this defect was gradually straightening out and was worse at birth. She had been breast fed and her diet supervised in a well-baby clinic. Her first tooth erupted at 3 months, she sat up at 6 months, walked at 13 months, talked early and was apparently developing normally, mentally and physically. Her only illness was measles at 18 months. There were neither accidents nor operations; her habits were normal and the symptoms negative, especially for syphilitic stigmas.

Examination.—She was 30 inches (76 cm.) tall (31½ to 32 inches is average for 20 months) and weighed 25 pounds 4 ounces (11.4 Kg.), which was normal for her height. She was a well nourished child with good color and tissue turgor, intelligent in appearance and actions. The obvious skull deformity commanded attention. It was wide laterally and flat in the occiput with an ordinary height; there was a rather high forehead with prominent frontal eminences; the bridge was flat and the nose retroussé; the face was small; the eyes were far apart and deviated more laterally than normally; the right supra-orbital ridge was sunken, and a mild left external strabismus completed the other features of the face and skull. The measurements are given in the accompanying table. The high position of both scapulae made the neck seem relatively short and very broad. This was Sprengel's deformity, the congenital elevation of one or both scapulae. The cervical vertebrae were normal. The palate showed some elevation and the bifid uvula was present.

Laboratory Data.—Urine, stool, tuberculin and blood tests, including the Wassermann test, were negative. The roentgen examination (fig. 2) showed that the sella was well outlined and normal in appearance. The sphenoid sinuses were not developed. There was a left occipitoparietal intersutural bone. The orbits were widely separated. The bone age was normal.

The intelligence quotient was near 2 years and the child was pronounced well within normal limits mentally.

CASE 2.—*History.*—A. L., a girl, aged 12 years, Italian, had had idiopathic epilepsy since the age of 8 years. The characteristic facies was evident though less marked than in case 1 (fig. 3). She resembled her father in appearance somewhat; her one sister and two brothers did not. The family history was otherwise negative. Birth, development and feeding were normal. She and her father had a white midline fetlock since birth. She had pneumonia at 8 months, measles with parotitis at 5 years and probably pertussis. An appendectomy and tonsillectomy had been done. Glasses were used for three years, though there was no definite visual complaint. After convulsions, she had occasional right frontal headaches and painful eyes. Her habits had been good except that she took a great amount of carbohydrates in her diet. Progress in school was satisfactory, though she had to repeat the fourth grade. She was entering the seventh grade at the time of this observation.

Examination.—The girl was tall and of asthenic type for her age (12 years 4 months); her height was 58½ inches (147.4 cm.; 57 inches, or 144.8 cm., is about normal); her weight was 73 pounds (33 Kg.; the ideal weight is 86 pounds or 39 Kg.); her span was 58 inches, from symphysis pubis to floor 30 inches, remainder of body 28½ inches, as shown in the table. Her fingers and toes were long, and there was slight interdigital webbing and suggested arachnodactyly. Her white fetlock was very noticeable. Her skull showed a slightly flattened vertex; great breadth, though the greatest length was not too short nor was the face too small; a depressed bridge but no marked retroussé nose; a mild right internal strabismus, and widely separated eyes. Examination was negative, including the fundi. Chest, abdomen and neurologic examinations were negative.

* From the Department of Pediatrics, University of California Medical School.

1. Fridolin, J.: Ueber abnorme Schädel, Virchows Arch. f. path. Anat. **122**: 528, 1890.

2. Grieg, D. M.: Hypertelorism, Edinburgh M. J. **31**: 560 (Oct.) 1924.

Laboratory Data.—Examination of the blood was essentially negative, including the Wassermann test. There was a faint trace of albumin in the urine. The tuberculin skin test was negative. The spinal fluid under 175 mm. pressure was clear, with 4 cells per cubic millimeter. The globulin and colloidal gold tests were negative. The Wassermann reaction was negative and there was a faint reduction of sugar. A roentgenogram depicted convolutional markings in the parietal and temporal areas slightly more prominent than usual. The sella turcica appeared normal and the orbits slightly separated. The bone age was just below 13 years. Mentally the patient was up to the 10½ year level, her intelligence quotient being 85 per cent, and there were no abnormal psychiatric signs.

Fig. 1.—Appearance of patient 1.

CASE 3.[3]—*History.*—M. S., a girl, aged 19 months, American (fig. 4), presented the typical facies of hypertelorism and additional deformities of the fingers and toes. She entered the hospital with a complaint of susceptibility to upper respiratory tract infections and a recent purulent eye infection. Between birth and 3 months she had frequent choking spells; since then only six attacks had occurred. Paroxysms of coughing occasionally alternated with the choking spells during respiratory infections. Her family history was negative for this cranial defect or for other diseases. Her past history was normal except that she was just beginning to walk and could say only the simplest words, mama and papa, and there appeared to be a slight retardation in mental development.

Examination.—She was a well developed and nourished girl with small fat pads about the clavicles, buttocks and hips. The peculiar facies was obvious but the left side was larger than the right; her eyes slanted downward and outward. There was a left external strabismus. Mouth breathing suggested adenoid obstruction. The skull had both a subnormal height and width and also great length; the sutures were closing but the anterior fontanel still admitted three finger tips. There was a questionable ptosis of the left lid and bilateral purulent conjunctivitis with profuse lacrimation. There was a heavy mucopurulent nasal discharge. She had fourteen deciduous teeth in good condition. The possibility of a congenital heart lesion was repeatedly debated though not confirmed. Her abdomen was very protuberant. Except for hyperactive reflexes the neurologic system was normal. Her thumbs and great toes were hypertrophied and held in abduction and extension. The child was moderately retarded mentally as judged by her actions and responses.

Laboratory Data.—Examination of the blood, including the Wassermann test, was negative, except for showing mild secondary anemia and leukocytosis (due to persistent fever from the present infection). Urine and tuberculin tests were negative. Roentgen examination showed an enlarged thymus, for which she was treated. The terminal phalanges of the thumbs and toes were increased in width, and an accessory ossification center was present. The bone age was normal. The sella turcica appeared normal on roentgenologic examination. Owing to the great length of the skull, the external auditory meatus appeared anterior to its normal position; the orbits were separated more than normal. No intersutural bones were present.

*Orbital and Skull Measurements: Comparative Measurements of Patients With Normal Subjects to Illustrate the Separation of Orbits and Types of Skull**

	Patient 1	Patient 3	Normal 20 Mo.	Patient 2	Normal 12½ Yr.	Patient 4	Normal for 12 Mo.†
Orbit:							
Between canthi							
Internal	44	35	28	42	32	32	26
External	95	93	79	97	89	83	73
Between center pupils	65	65	48	65	58	56	45
Width palpebral slit: Right	23	23	23	25	25	24	22
Left	25	26	23	25	25	24	22
Orbital height: Right	29	27	29	31	29	28	29
Left	29	27	29	31	29	28	29
Orbital width: Right	44	38	40	39	42	40	33
Left	41	38	40	40	42	40	33
Orbital index: Right	65.8	71	72.5	79.4	69	70	87
Left	70.7	71	72.5	77.5	69	70	87
Skull:							
Circumference (greatest)	440	455	480	515	510	444	460
Length (greatest)	145	155	160	175	183	142	150
Width: Parietal	130	120	130	130	145	128	127
Temporal	129	105	122	145	135	130	125
Cephalic index	89.6	77.4	83	82	80	91	88
Type	Brachy-cephaly	Meso-cephaly	Brachy-cephaly	Brachy-cephaly	Brachy-cephaly	Ultra-brachy-cephaly	Hyper-brachy-cephaly

* All measurements are in millimeters.
† Twelve months normal chosen since patient 4, though 27 months of age, has height of 12 months infant.

CASE 4.—*History.*—G. N., a girl, aged 27 months, Assyrian-American (fig. 5), was one of twins. Since the age of 4 months she had been developing a dorsolumbar kyphosis with scoliosis to the left. There were no local signs of redness or swelling but there had been some tenderness. No history of fever was given. Physical and mental development were retarded. Pallor and weakness had been present occasionally. The twin sister was normal for her age. The father was

3. The author acknowledges the use of this case from the Children's Hospital of San Francisco, Dr. Myrl Morris, chief of service.

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mentally retarded. There was no similar facies in the family and certainly none in the twin sister; the history was otherwise negative. The patient was a full term, normally delivered twin who weighed 6 pounds 4 ounces (2.8 Kg.) at birth. She was breast fed and attended the well-baby clinic regularly. She had had no known diseases or accidents. Symptoms were negative except for repeated respiratory infections. Dentition and learning to walk were not delayed. However, walking was possible only with aid, and she was just beginning to talk, being far behind her twin sister in mentality.

Examination.—She was a happy child sitting in bed, pale, thin and about the size of a year old infant, 31 inches (78.7 cm.) tall and 20 pounds 2 ounces (9 Kg.) in weight. The typical facies with the right eye strabismus and kyphosis was evident. The skull length was short, the width broadened and a short keel-like ridge extended from the forehead to the vertex, where it gradually disappeared. The eyes had a suggestive exophthalmos; the right cornea appeared cloudy and normal vision was lacking; the fundi were negative. The canine teeth were short and pointed and all the teeth were present. There was a profuse mucopurulent discharge from the nose. The lungs were clear but there was a definite congenital cardiac defect, probably a patent interventricular septum with pulmonary stenosis. She had a protuberant abdomen with smooth, nontender liver enlarged three fingerbreadths in the midclavicular line. A large, firm, nontender spleen reached to the iliac crest. There were no neurologic signs.

Laboratory Data.—Urine, stool and Wassermann tests were negative. Examination of the blood showed 48 per cent hemoglobin, red blood cells 3,820,000 and a moderate leukocytosis of 15,000 cells. Blood studies were negative for a dyscrasia. Occasional white blood cells were found in the urine. The tuberculin skin test with 0.1 mg. was positive, both human and bovine. Roentgenograms showed that the bone age was normal and the sella turcica was also normal. The skull showed no intersutural bones; the orbits were widely separated. The normal spinal curvature was replaced by a dorsolumbar kyphoscoliosis to the left. There was some molding of the lumbar vertebrae, suggesting an old osteochondritis. It did not appear to be tuberculous. Hilar densities in the chest were present and suggested a probable tuberculous focus.

ETIOLOGY AND PATHOLOGY

Essentially a developmental anomaly of the sphenoid bone explains the condition. As Grieg [2] states:

> That part of the sphenoid developed in cartilage (the lesser wings) early develops into bone—about the third month of fetal life; . . . the lesser wings . . . increase greatly in width . . . outdistancing the greater wings; thus the orbits retain the fetal lateral deviation because they are fixed . . . due to the premature ossification in the sphenoid.

Hence the fetal facies. Ogilvie and Posel [4] further elaborate:

> The lesser wings of the sphenoid form the posterior part of the roof of the orbit; the anterior border articulates with the orbital plate of the frontal bone. An enlargement of this wing, as in hypertelorism, pushes the whole frontal and maxillary bones upward, forward and outward. An internasal bone is thus necessary and a retroussé nose develops. The tilting of the frontal bone, which must necessarily occur, explains the combination of low forehead with slight prominence of the frontal eminences.

Several investigators, including Braithwaite [5] and Abernathy,[6] suggest an endocrine basis for this condition. Braithwaite found vague resemblances to mongolism in his patient, and because his "mongol" had a shallow sella turcica (as hypertelorism occasionally does) he suggested a dyspituitarism as the common lesion in the two; also in his experience pituitary therapy had been somewhat useful. Certainly this is nothing more than a theory. Hypertelorism does not show clear-cut endocrine signs. In case 2, dyspituitarism might be suggested by the spider-like digits; but this has been more frequently associated with developmental defects.

Abernathy comments interestingly on the hereditary aspects. He feels that the lesion is a mendelian "sport" which, becoming fixed, is heritable. He writes: "The shape of the sphenoid, like the number of digits, may be developmentally one of the 'weak spots' which, though normally fixed, are more liable to extranormal variation, whether advantageous or disadvantageous to their possessors, than the other members of the body." In the first case here reported the shoulders were "weak spots" suggesting this ultranormal variation.

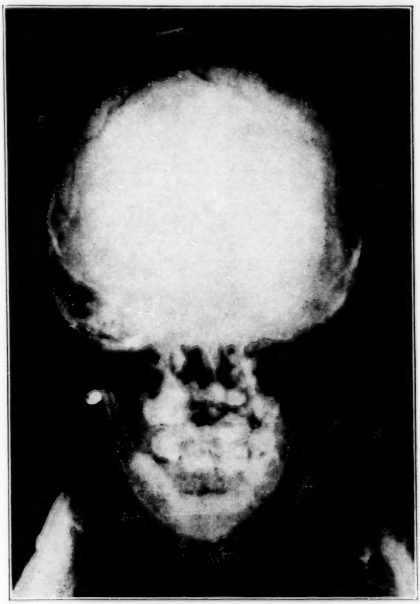

Fig. 2.—Skull deformity in case 1.

CLINICAL FORMS

There are possibly four different forms of this syndrome. The facies is common to all; mental deficiency and familial tendency are variables. The most commonly reported variety is the one with facies and familial tendency but without mental defect.[7] Grieg's patients had facies and mental deficiency but no similar family history. My first case demonstrated the facies only and the second case the facies with questionable familial tendency and beginning mental deficiency. The combination of all three signs, facies,

4. Ogilvie, A. G., and Posel, M. M.: Scaphocephaly, Oxycephaly and Hypertelorism, Arch. Dis. Childhood **2**: 146 (June) 1927.
5. Braithwaite, J. V. C.: Relation of Hypertelorism to Mongolism, Arch. Dis. Childhood **1**: 369 (Dec.) 1926; Hypertelorism, Proc. Roy. Soc. Med. **21**: 1856 (Oct.) 1929.
6. Abernathy, D. A.: Hypertelorism in Several Generations, Arch. Dis. Childhood **2**: 361 (Dec.) 1927.
7. Abernathy (footnote 6). Monford, T. M.: Hereditary Hypertelorism Without Mental Deficiency, Arch. Dis. Childhood **4**: 381 (Dec.) 1929. Allen, F. M. B.: A Case of Hypertelorism Without Mental Defect, ibid. **1**: 171 (June) 1926.

history and submentality, in one patient has not been reported before. Case 3 presented facies with questionable submentality. Case 4 showed facies with marked submentality.

SYMPTOMS

A case of hypertelorism will be recognized at birth because of the peculiar facies. The skull is characterized by a relatively small face and large cranium, and the retroussé nose has a broad bridge which sets the eyes far apart; these have their horizontal axes directed far laterally, and strabismus, usually external, unilateral or bilateral, is the rule; a high forehead completes the picture. However, the height of the skull and its circumference are usually within normal limits; anteroposteriorly the diameter is small, so that the head appears flat at the occiput. It is a decided brachycephalic skull.

Fig. 3.—Characteristic facies in case 2. The fetlock is just perceptible.

Fig. 4.—Typical facies of hypertelorism in case 3.

Physical development is normal except for occasional retarded growth in height. The child may not sit, stand or walk until 2 or 2½ years of age. Mental deficiency may be manifest early or late and a low moron level is usual. The child is usually even tempered and easily managed. Aside from these observations, the past history does not reveal anything remarkable. Tuberculosis, pulmonary with miliary dissemination, has been reported in two cases as the cause of death. The fourth patient of mine had a positive tuberculin test but bone changes were not definitely tuberculous.

Physical examination may show additional deformities and stigmas. Syndactylism and high palate are common. Undescended testes are often noted. Acrocyanosis is frequent, supposedly because of altered function and formation of the tectum, the seat of vasomotor control. A study of brain function in the region of the sphenoid suggests the following: Because of strabismus, visual acuity may be impaired, and partial or total blindness can occur but no optic atrophy has been found. In spite of the usual small sella turcica, no true dyspituitarism has been authenticated. Arachnodactyly was possibly present in case 2; patient 1 had Sprengel's deformity and bifid uvula. Patient 3 had the greatly enlarged terminal phalanges of thumbs and toes with extra ossification centers; also there may have been congenital disorder of the heart. Patient 4 had a definite congenital disorder of the heart.

There are no distinguishing laboratory signs except that roentgen examination reveals the previously described skull characteristics. There are intersutural bones, internasal, parietomastoid and pterionic, the sutures are incomplete and there are no digitations.

DIAGNOSIS, PROGNOSIS AND TREATMENT

Oxycephaly does not have the orbital separation; the skull is higher (turmschädel of the Germans) and no suture lines are to be seen. Scaphocephaly, with its great length and keel on the vault, need cause no confusion. There is no other condition having the wide separation of the orbits.

Insufficient follow-up to date makes it difficult to predict the future of these patients. The few deaths reported have been due to tuberculosis in most instances. The family tendency at least justifies the possibility of reaching adult life. A sufficiently low mentality, of course, is very unfavorable.

Obviously, nothing can be done directly for the condition of the sphenoid. The hygienic, preventive and environmental care in pediatrics are certainly in order if the child has normal or even slightly impaired mentality. The ophthalmologist can possibly aid some cases of strabismus if necessary. Pituitary extract has been used by Braithwaite [8] with success. The same improvement in his case might have occurred spontaneously in the course of development.

COMMENT

While previous authors have stressed the rôle of heredity, inheritance governed by the mendelian law probably cannot be demonstrated. It would appear more logical to accept familial tendency than true inheritance, since the condition resembles a congenital

Fig. 5.—Typical facies, with strabismus of right eye, in case 4.

8. Braithwaite (footnote 5, second reference).

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stigma or defect. The pure case of hypertelorism is exceptional; ocular hypertelorism combined with another cranial defect is the more common occurrence. Plagiocephaly existed in case 1, and patient 3 also had a long high narrow skull suggesting scaphelocephaly. All American children up to 14 years in the University of California Clinic,[9] regardless of constitutional type, have a mild brachycephaly or mesocephaly. The brachycephaly of hypertelorism, however, is more marked than normal. On the other hand, cases of ocular hypertelorism are not all pure brachycephaly, as stated by previous authors—case 3 for example. This is due to associated cranial deformity.

SUMMARY

1. Hypertelorism is a developmental defect of the lesser wings of the sphenoid bone; they ossify early in uterine life and grow excessively. This causes the typical widely separated eyes. The skull is brachycephalic. Mental retardation can occur. There are other similar occurrences of hypertelorism in families.

2. Four additional cases in American literature are reported, bringing the total to seventeen.

3. Only one patient had definitely normal mentality; one had a history of previous occurrence of hypertelorism in the family. This patient possibly showed for the first time in the literature the combination of the three classic signs—family tendency, orbital separation and retarded mentality.

4. It is more correct to refer to family tendency than to heredity in this condition.

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FRIEDMAN'S HORMONE TEST FOR PREGNANCY *

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Laboratory tests for pregnancy are at least 3,000 years old, according to Aschheim and Zondek,[1] who described an Egyptian papyrus reading: "A woman may determine if she is pregnant by taking some earth and barley in a vessel and adding to it a little of her urine day by day. Should the barley grow, the woman is pregnant, but if the grain does not grow, then she will not bear a child." In 1928, Aschheim and Zondek reported a more reliable and refined test for detecting pregnancy. This test was based on the fact that during pregnancy an enormous excess of anterior pituitary hormone is excreted in the urine, in addition to ovarian hormone, and that shortly after the puerperium this excess secretion stops. In testing more than a thousand specimens, they recorded an accuracy in diagnosis of 98.6 per cent. The test, as outlined by Aschheim,[2] consisted of injecting into five or six immature female white mice, 21 days old, varying quantities of urine from the patient in question. The mice were given injections subcutaneously on two successive days, three times a day. After a hundred hours the ovaries were examined for precocious corpora lutea and corpora hemorrhagica. To have five or six female mice 21 days old available for each test necessitates the care of a rather large colony of mice; indeed, for practical purposes, between 6,000 and 10,000 animals must be maintained to yield a reasonable supply.

Friedman [3] injected the urine of pregnant and nonpregnant women intraperitoneally and intravenously into rabbits during an investigation of ovulation of the rabbit. It was known that the rabbit, although ova continuously ripen, does not ovulate until after copulation; thus it was possible to study the effect of urine on ovaries free from corpora lutea and corpora hemorrhagica. He injected 5 cc. of urine from pregnant women into each of eighteen rabbits and obtained positive results in each case, whereas fourteen rabbits that were given injections of urine from nonpregnant women gave negative results. He called attention to the fact that this could be used as a test for early pregnancy.

Reinhart and Scott [4] presented before the ninth annual convention of the American Society of Clinical Pathologists in June, 1930, the results of tests conducted after the manner of Friedman, using from 5 to 12 cc. of urine obtained by catheter in the morning. They stipulated that the rabbits should be adult, nonpregnant females weighing not less than 4 pounds (1.8 Kg.), and that the first morning specimen of urine should be injected promptly or kept on ice until used. The examination of the ovaries of the rabbits was made after twenty-four hours. Urine from fifty patients was used, and the results were correct in forty-nine as checked clinically. The one error was a negative result from urine obtained from a pregnant woman.

Fig. 1.—Ovaries of a rabbit in which corpora hemorrhagica formed as a result of injection of 10 cc. of urine from a pregnant woman.

Schneider [5] reported on the use of the test in 100 cases. He used rabbits from 12 to 14 weeks old. Fifty tests were done on as many women, half of whom were known to be pregnant and half not pregnant. The results of these tests were in exact correspondence with the clinical facts. Of the remaining 150 tests conducted to ascertain whether or not patients were pregnant, 61 proved positive and 89 negative. Of the sixty-one positive tests, all proved valid save two, in which there were technical errors. Of the eighty-nine negative tests, six were on patients who were evidently too early in pregnancy to give positive tests, for later they did give positive tests. He concluded that positive tests could be obtained from eighteen to twenty-one days

9. From many personal measurements done in the clinic; also a personal opinion of Dr. Helen B. Pryor studying anthropometry in American children.

* From the Section on Clinical Pathology and the Section on Obstetrics, the Mayo Clinic.

1. Aschheim, Selmar; and Zondek, Bernhard: Die Schwangerschaftsdiagnose aus dem Harn durch Nachweis des Hypophysenvorderlappenhormons, Klin. Wchnschr. **7**: 1453-1457 (July 29) 1928.

2. Aschheim, Selmar: The Early Diagnosis of Pregnancy, Chorionepithelioma and Hydatidiform Mole by the Aschheim-Zondek Test, Am. J. Obst. & Gynec. **19**: 335-342 (March) 1930.

3. Friedman, M. H.: Mechanism of Ovulation in the Rabbit: II. Ovulation Produced by the Injection of Urine from Pregnant Women, Am. J. Physiol. **90**: 617-622 (Nov.) 1929.

4. Reinhart, H. L., and Scott, E.: The Hormone Test for Pregnancy, Am. J. Clin. Path. **1**: 113-126 (Feb.) 1931.

5. Schneider, P. F.: Ovulation in the Rabbit as a Diagnostic Measure in Early Pregnancy, Proc. Soc. Exper. Biol. & Med. **28**: 117-119 (Nov.) 1930; A Hormone Test for the Diagnosis of Early Pregnancy: Clinical Application in One Hundred Cases—Preliminary Report, Surg. Gynec. Obst. **52**: 56-60 (Jan.) 1931.

following the intercourse responsible for the pregnancy and that after about four days post partum the test becomes negative. The urine from a patient with chorio-epithelioma gave positive reactions before operation and negative reactions afterward.

Eberson [6] reported on another test to demonstrate the presence or absence of anterior pituitary hormone in urine. He concentrated the pituitary hormone from 8 ounces (240 cc.) of urine obtained in the morning, by adding two and one-half volumes of 95 per cent alcohol and allowing the precipitate to settle out in an icebox for from a few hours to overnight. The precipitate was suspended in from 3 to 4 cc. of physiologic solution of sodium chloride and shaken with an equal volume of ether. This was repeated two or three times, and the saline solution, now freed from the ovarian hormone, was ready for injection. Immature female rats were used, and the material was injected subcutaneously in

Fig. 2.—Microscopic sections of left ovary shown in figure 1; × 17.

two to three small doses. After waiting two or three days, the animals were examined for the usual changes in the ovaries. Eberson reported 175 consecutive tests, in all of which the clinical signs and histories corresponded to the laboratory report.

EXPERIMENTAL DATA

Our experience with the intravenous test on rabbits, as devised by Friedman, has been gained by testing the urine of eighty-five patients. Of these patients thirty-eight were pregnant, as was evidenced by other positive signs and observations, and forty-seven were not pregnant.

The urine from each nonpregnant woman except one gave a negative result when injected into rabbits. Typical corpora hemorrhagica were noted in the ovaries of the rabbit used for that test. However, there was the possibility that the animal had recently copulated with a young male that was placed in the same cage by mistake, which would account for the false positive.

Positive results were obtained by injecting the urine from pregnant women into rabbits in each instance save one. In this case, an early pregnancy, the first specimen gave a negative result, whereas a specimen obtained five days later gave a typically positive result; on the same day, the patient passed a blood clot containing decidual cells.

Several of the specimens from nonpregnant women were collected during the menses and did not give false positives, whereas pregnancies of as early as six weeks to two months' duration were diagnosed by means of the test.

ILLUSTRATIVE CASES

CASE 1.—The patient, aged 31, had been married seven years. She had one child, aged 6 years, whose delivery had been normal. Therapeutic abortion had been performed in 1928.

General examination revealed extensive active tuberculosis of the right upper lobe of the lung, extending to the seventh rib posteriorly. There was, also, mild hypertension with albuminuria. It was important to make the diagnosis of pregnancy as early as possible. Her last menstrual flow had begun January 6, and she was seen February 14. A rabbit which was given an injection of urine gave a very definitely positive reaction. Interruption of the pregnancy was advised.

CASE 2.—The patient, aged 23, had two children living and well, the younger of whom was aged 4 months. Chronic rheumatic endocarditis, mitral stenosis and aortic insufficiency were diagnosed. Because of the extent of the cardiac disease it was desirable to make an accurate diagnosis of early pregnancy. The uterus was slightly enlarged, and the last menstrual flow had been six weeks previously. The injection of urine into a rabbit gave a definite positive reaction. Dilation was performed and curettage disclosed decidual and placental tissue.

COMMENT

Although this test is simple to perform, certain precautions are necessary. In the first place, the first urine passed in the morning should be used and should be injected within an hour, or the specimen should be kept on ice until it is used. Urine older than five hours probably should not be used. If the urine is cloudy it should be filtered. Rabbits younger than two and a half months should not be used, and we have found no objection to using old animals if they have not recently copulated. It is absolutely essential that rabbits be kept under such conditions as to insure their not being pregnant as well as not having recently copulated. If the rabbits are young, care will have to be exercised to be sure females and not males are selected for the test, for the external genitalia are not so clearly recognized as in older animals. We prefer to isolate animals in single cages for three weeks before using them, thus avoiding any of these difficulties.

Sterile technic is not necessary, and from 7 to 15 cc. of urine should be injected slowly into the marginal ear vein of the rabbit. Thirty hours should elapse before the animals are examined, else the test may be indefinite.

Positive tests are indicated by the presence of corpora lutea and corpora hemorrhagica (figs. 1 and 2), which are detected by gross inspection. If they are not clearly evident, the test had best be considered negative. In our series of positive animals, marked injection of the uterus and oviducts was striking.

CONCLUSIONS

The hormone pregnancy test devised by Friedman, using urine which is injected intravenously into rabbits, is both practical and accurate. It is of great value in

6. Eberson, Frederick: A Rapid Method for the Diagnosis of Early Pregnancy from Urine, Proc. Soc. Exper. Biol. & Med. **28**: 407-409 (Jan.) 1931.

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distinguishing either early or late pregnancy from other conditions. Perhaps its greatest value will be in detecting early pregnancy in cases in which continuation of the pregnant state would be dangerous to the physical well being of the patient.

CALCIFICATION OF INTRARENAL ARTERIES GIVING ROENTGEN APPEARANCE OF CALCULI

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Calcification of the walls of the large intrarenal branches of the renal arteries in such a way as to give the roentgenologic appearance of calculi or tuberculous calcification is extremely rare.

Calcification of this type has occasionally been noted at the postmortem table, but so far as we have been able to determine there are no reports in the literature of a case similar to this one and only a few vague references as to the possibility of its occurrence:

A white man, aged 54, was first admitted to the clinic, March 18, 1929, with a benign hypertrophy of the prostate and acute urinary retention. A roentgen examination of the genito-urinary tract showed in the kidney regions several

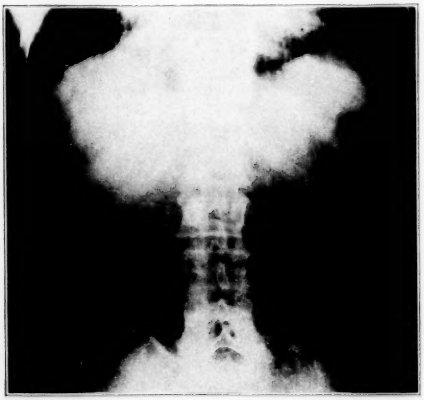

Fig. 1.—Stereoscopic plate showing shadows resembling calculi in kidney region.

shadows that were thought to resemble calculi or to be due to a tuberculous process in the kidneys. A roentgenogram of the chest, at this time, was entirely negative.

Catheter drainage was instituted. Numerous twenty-four hour specimens of urine were examined for tubercle bacilli and found negative. Since the prostatic obstruction was the important thing of the moment, a one-stage suprapubic prostatectomy was performed. Convalescence was uneventful; the patient left the hospital, April 17.

Two months later he was again admitted to the hospital for the repair of a hydrocele, and further investigations of the shadows in the kidney regions were made. A bilateral pyelogram showed the iodide obscuring some, but not all, of the shadows seen in the plain plates. As the urine was negative again for tubercle bacilli, the shadows were thought to be calculi. Separated urine specimens from each kidney at this time were alike; these contained a few pus cells, occasional red

Fig. 2.—Bilateral stereoscopic pyelogram showing some of shadows seen in figure 1. They appear to be in the kidney cortex; others are obscured by the shadow of the iodide filling the pelvis.

cells, and a few hyaline and granular casts. The hydrocele was repaired and the patient was discharged.

Ten months later, March 17, 1930, the patient was again admitted to the urologic service, complaining that for six weeks prior to coming to the hospital he had a severe and nearly constant pain in the lower thoracic spine radiating around the upper part of the abdomen and sometimes to the hips. He also had severe frontal headaches, weakness, and a loss of 16 pounds (7 Kg.) in weight. Cystoscopy was again performed, and roentgenograms were taken. The urologic observations were identical with those of the previous admission except that there was a slight increase in the size of the shadows previously seen in the region of the kidneys. The roentgenograms of the chest at this time, however, showed diffuse areas of increased density about the hili of the lungs suggestive of a malignant process.

The patient was transferred to the medical service with a urologic diagnosis of calcifications in the region of the kidneys or renal calculi, and cancer of unknown origin. After the transfer, the patient's course was rapidly down-hill. He died, deeply jaundiced, April 3.

An autopsy was performed and the following anatomic diagnosis made: 1. Carcinoma of lung (origin, bronchus); metastases in mediastinal and periportal lymph nodes, liver, pancreas, left suprarenal and right pleura; stenosis of the trachea; stenosis of common bile duct; jaundice; biliary cirrhosis. 2. Sclerosis of renal arteries with calcification; benign hypertrophy of prostate; lobular pneumonia, right upper lobe, right lower lobe and left lower lobe; focal necroses of spleen (malpighian corpuscles); medial calcification of aorta.

A detailed description of the gross and microscopic appearance of the kidneys and intrarenal arteries is of interest.

The right kidney weighed 180 Gm. and measured 12.5 by 6.5 by 2.5 cm. The capsule stripped easily, leaving a surface that was smooth except for fetal lobulations. The color was normal. Section revealed a moderately injected cortex, in which the glomeruli were conspicuous as red dots. The markings were otherwise normal. The pelvis was normal. The main branches of the renal artery were large and contained large palpable and visible plaques of calcium in their walls. The left kidney weighed 170 Gm. It resembled the right kidney both externally and on section. The pelvis and ureter were normal.

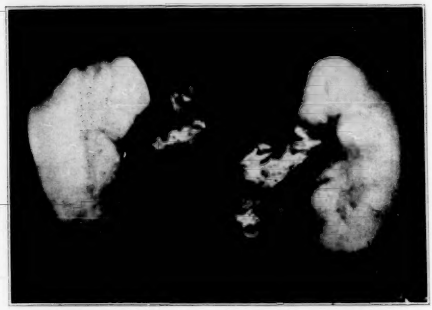

Fig. 3.—Sagittal section of the kidneys, showing a few calcified areas in the walls of the arteries.

Microscopically the glomeruli were of various sizes. Most of them were engorged; the lobules did not show, but there were no capsular adhesions. Occasional fibrosed glomeruli were present, and a few casts in the tubules. Most of the vessels showed some sclerosis. The Weigert stain brought out moderate intimal thickening with reduplication of the inner elastic membrane in all the arteries.

There was marked sclerosis of the intrarenal branch of the renal artery with a thick intima and a rather thin media. The Weigert stain revealed extreme intimal thickening with an irregular meshwork of elastic fibers. The inner elastic membrane was distinct in some places but for the most part indistinguishable. The media was irregular, broken, and under the thickest intima it seemed to be lacking. The adventitia seemed more pronounced there but was normal elsewhere.

This case is of peculiar diagnostic interest to the roentgenologist, internist, surgeon and urologist alike, as shadows such as these, though less numerous, are perhaps not infrequently seen, and, when associated with pyuria, hematuria or pain, offer a difficult diagnostic problem between calculus disease of the kidney and tuberculosis. In the light of this case it seems probable that, in this clinic at least, such shadows associated with hematuria have been diagnosed as renal calculi and operations performed that were unsatisfactory to patient and surgeon alike.

Fig. 4.—Portions of wall of one of the large intrarenal arteries, showing areas of calcification in the arterial walls.

755 Park Avenue.

New Movements in Psychology.—The past thirty years have been remarkably productive of new movements in psychology, with the result that we now see the curious phenomenon of schools differing radically from one another in their ideas as to what psychology should be doing.—Woodworth, R. S.: Contemporary Schools of Psychology, New York, Ronald Press Company, 1931.

INTERSTITIAL KERATITIS

FURTHER REPORT *

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The study that I made in conjunction with Dr. G. S. Derby in 1925, and presented before the Section on Ophthalmology of the American Medical Association,[1] was undertaken to determine as far as possible how much may be accomplished by antisyphilitic treatment of patients afflicted with interstitial keratitis. For this purpose we collected 100 cases of interstitial keratitis in which the patients either received antisyphilitic treatment in a desultory fashion over comparatively short periods of time or did not receive any general treatment worth mentioning. For comparison with this group we selected from our 222 cases of interstitial keratitis that had been treated with arsphenamine or its allied drugs 100 cases whose treatment might be considered intensive, as it consisted of numerous injections of arsphenamine or allied preparations and mercurials by injection, inunction and by mouth in addition to iodides when indicated. Except for the shorter period of observation of these treated cases, the comparison was fair.

In the present review of these cases, five years is added to the duration of time since the subsidence of all active symptoms of the interstitial keratitis.

VISION

Our former report showed better visual results in the treated cases than in the untreated cases. Vision was 20/30 or better in 58 per cent of the treated cases and in 28 per cent of the untreated. Vision was 20/60 or better in 75 per cent of the treated, as against 56 per cent of the untreated. Vision was 20/70 or worse in 24 per cent of the treated and 42 per cent of the untreated. In the treated cases, only 15 out of 178 eyes had a vision less than 20/100; one eye had perception of light only. In the untreated cases, 45 eyes out of 179 had a vision of less than 20/100; 5 eyes had light perception only, and in 5 eyes the vision was nil.

For this review in 1929 we were able to get a check-up examination on 67 of our 100 treated cases, thus adding five years to the time between the subsidence of all active symptoms and the final check-up. In 23 cases the vision had improved, in 32 it had not changed, in 9 it was not as good, and in 3 we did not have the data. In 5 of the 9 cases in which the vision had failed there were other complications such as cataract, choroidal changes in the macula, glaucoma secondary to marked chorioretinitis of diabetes, exophthalmic goiter, and phlyctenular keratitis.

In discussing the interval between attacks in the two eyes, Igersheimer [2] states that intensive combined mercury and arsphenamine therapy at the beginning of the inflammation in the first eye does not prevent the involvement of the second eye, and that the inflammation of the second eye may reach the same degree as in the first. Fuchs [3] states that interstitial keratitis attacks

* From the Massachusetts Eye and Ear Infirmary, service of Dr. G. S. Derby.

1. Carvill, Maud; and Derby, G. S.: Interstitial Keratitis, Tr. Sect. Ophth. A. M. A., 1925, p. 260.

2. Igersheimer, Josef: Syphilis und Auge, Berlin, Julius Springer, 1918.

3. Fuchs, Ernst: Textbook of Ophthalmology, Philadelphia, J. B. Lippincott Company, 1907.

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both eyes and more frequently both eyes in succession than the two at once. Sometimes there is even an interval of several years between the involvement of the two eyes. De Schweinitz [4] states that the second eye is almost certain to be attacked in from a few weeks to two months. In rare instances the interval is many months, even a year; it may be delayed from five to six years. J. F. Cunningham [5] reports fourteen cases in which the second eye was not attacked for more than one year after the first. The longest interval he found is nineteen years. In this case the right eye was attacked when the patient was 12 years old and the left one was not attacked until 1913, when she was 31.

W. T. H. Spicer [6] states that generally the attacks in the two eyes are alike. One eye may be attacked very severely and the other slightly. He reports a case in which one eye had a mild attack, and seven years later the second eye had a more severe attack than the first. In 75 per cent of his 700 cases the two eyes were attacked together or overlapped with no greater interval than twelve months; there were many cases with a longer interval and two cases with an interval of eighteen years. Only 2 per cent showed an interval of more than five years. There were several one-eyed patients; in one case the second eye was unaffected after thirteen years, and in another the second eye was free from disease for twenty-six years. This patient brought Hutchinson's original letter, dated 1876, when she was 7 years old.

In 93 cases, or 93 per cent, of the 100 treated cases previously reported, injections of arsphenamine were begun early in the involvement of the primary eye with interstitial keratitis. Among these cases there were 18, or 19 per cent, in which the other eye showed no symptoms of interstitial keratitis. The time from the subsidence of all active symptoms in the primary eye to the final examination varied from one year and three months to more than seven years. Of these 18 cases in which the second eye was not involved, we have reexamined at this time 17, 16 of which show no sign of interstitial keratitis in the second eye. The interval since the subsidence of active symptoms of interstitial keratitis in the primary eye in these cases varied from five to twelve years. In 1 case it was five years; in 1, six years; in 1, seven years; in 1, eight years; in 6 cases, nine years; in 4 cases, ten years; in 1, eleven years, and in 1, twelve years. One of these 18 patients had moved out of the state and we were unable to locate him.

The remaining patient showed no symptoms of interstitial keratitis in the second eye until eight years after the acute symptoms had subsided in the first eye. Then he had a severe attack in the second eye, which lasted nine months. His antisyphilitic treatment had been most thorough. In 1919 he was treated in the Massachusetts General Hospital, receiving a course of six injections of arsphenamine. In 1920 the Wassermann reaction was moderately positive and he was given a course of nine injections of arsphenamine followed by a course of mercurial oil; in 1923 he was given a course of three injections of arsphenamine; in July, 1927, when the second eye became inflamed, he was given a course of ten injections of neoarsphenamine, and in November, 1928, the Wassermann test was negative and and he received fifteen injections of a bismuth compound intramuscularly.

W. T. H. Spicer's 700 cases showed only 2 per cent with an interval of more than five years. In the 93 cases in our study in which arsphenamine injections were begun early in the involvement of the primary eye with interstitial keratitis, there are 18 cases, or 19 per cent, in which the interval was more than five years. Seventeen of these cases are still one-eyed cases.

In none of these sixty-seven cases which we are again checking up has there been a recurrence of interstitial keratitis during the five years.

LATER OCULAR COMPLICATIONS

One patient had a syphilitic iritis; one had a cataract; one had an acute glaucoma secondary to a severe diabetic chorioretinitis; one had phlyctenular keratitis; one had exophthalmic goiter for which a thyroidectomy was done, and one had a severe injury.

There have been three deaths; one due to lung abscess, one to lobar pneumonia and one to pyemia.

INCIDENCE

It is significant to note that in our clinics the last few years the new cases of interstitial keratitis have noticeably fallen off, as the accompanying table shows, from 0.5 per cent of the new cases treated in 1914-1915 to 0.27 per cent in 1929-1930.

Incidence of Interstitial Keratitis *

Years, Oct. to Oct.	Total Number of New Cases	Total Number of New Cases of Interstitial Keratitis	Per Cent
1914–1915	18,689	89	0.5
1915–1916	19,833	92	0.5
1916–1917	19,331	86	0.4
1917–1918	16,371	76	0.5
1918–1919	16,321	72	0.4
1919–1920	15,404	77	0.5
1920–1921	15,270	80	0.5
1921–1922	15,172	69	0.45
1922–1923	16,139	51	0.3
1923–1924	15,959	66	0.45
1924–1925	15,697	72	0.45
1925–1926	14,918	64	0.42
1926–1927	14,109	49	0.34
1927–1928	15,313	51	0.33
1928–1929	12,557	44	0.35
1929–1930	12,302	34	0.27

* The clinic decrease from 1928 may be only an apparent one and due to the fact that the outpatient departments of the Eye and Ear Infirmary and of the Massachusetts General Hospital were consolidated at that time. Cases entered first in other departments and then transferred to the Eye Department were not credited as new cases.

In our earlier study under the question, Can interstitial keratitis be prevented by the treatment of congenital syphilis in earlier years? we reported the cases of ten patients who received antisyphilitic treatment before the attack of interstitial keratitis. To this list may be added the following cases recently treated in our clinic:

V. D., a girl, aged 19 years, when 13 years of age had a positive Wassermann reaction, suggestive teeth, inguinal glands and thickened skin. A sister had interstitial keratitis and a positive Wassermann reaction. The father and mother had positive Wassermann reactions. The girl was treated at the Massachusetts General Hospital, receiving six injections of arsphenamine in 1923, and then failed to return for further treatment until 1930, when she came in with a very severe attack of interstitial keratitis in her right eye, followed in a few weeks with an equally severe involvement of the left eye.

4. de Schweinitz, G. E.: Diseases of the Eye, Philadelphia, W. B. Saunders Company, 1906.
5. Cunningham, J. F.: J. Ophth. Soc. U. K. 42: 44, 1922.
6. Spicer, W. H. T.: Brit. J. Ophth., Monograph. Suppl. 1, 1924.

At the present time we have in our clinic a man, aged 24, with a severe first attack of interstitial keratitis in the second eye and a recurrence in the primary eye after an interval of five years since the subsidence of all active symptoms in the primary eye. The first attack in the primary eye was severe and lasted for a year and a half, with final vision of 20/100. At the time of the attack in the primary eye the patient was treated at the Massachusetts General Hospital. He showed no stigmas of congenital syphilis, but his Wassermann reaction was strongly positive. In 1924 he received ten injections of neoarsphenamine followed by fourteen injections of mercurial oil. In 1925 he had a series of ten injections. His Wassermann reaction was negative in 1926. In 1930 he had a severe attack of interstitial keratitis in the second eye and a recurrence in the primary eye.

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PNEUMONOCONIOSIS

THE DELAYED DEVELOPMENT OF SYMPTOMS

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Practically all clinical and statistical studies of silicosis have been made on groups of men still employed in dusty trades. From these studies the conclusion has been reached that, while there is a great variation in individuals in the length of exposure necessary to produce clinical and roentgenographic evidence of the disease, it is rare for it to develop in men who have not been at the work for many years. Watkins-Pitchford [1] found that the average duration of exposure in the South African mines before the appearance of symptoms was 9.6 years. Tatersall [2] found that in hard rock coal miners it was slightly more than ten years.

From statistics of this nature compiled from groups of men still employed in the trade, one cannot say what is the late effect of short exposures. They give no information as to what happens to men who, having been exposed for relatively short periods without having developed signs or symptoms of silicosis, change their trades and take up nondusty work.

In 1924, in an article dealing with the general problem of silicosis, one of us [3] cited two instances in which men, without having developed pulmonary symptoms, discontinued their exposures and then, after remaining symptom free for many years, came down with typical clinical and roentgenographic silicosis or silicosis and tuberculosis. Watkins-Pitchford, Tatersall and Russell [4] have remarked on similar isolated cases. The former observed that a number of South African miners, who had no evidence of silicosis when they left work to go to war, had definite clinical silicosis when they returned three or four years later.

It is our purpose in this paper to emphasize this aspect of the problem by reporting four cases of silicosis or silicosis and tuberculosis which developed many years after relatively short exposures. Cases of this kind suggest the necessity of revising the conception of the length of exposure necessary to produce the disease. It is the experience of all who have had to do with it that, once a man has developed symptoms while still engaged in the dusty occupation, stopping the work does not prevent the gradual steady progression of the pathologic changes. The cases reported here make it seem probable that after relatively short exposures sufficient dust is deposited in the lungs to instigate a progressive fibrosis which only after many years becomes sufficiently extensive to produce symptoms. It may be, on the other hand, that the dust alone does little harm until it is complicated by infection. Whichever explanation one adopts, it is obvious that statistics compiled from groups of men still engaged in the work cannot show the length of exposure necessary to produce the disease. It is more probable that they give evidence chiefly of the length of time necessary for its development.

The question raised by these cases is of great importance from the point of view of industrial hygiene and from that of the legal aspect of industrial medicine. The patients whom we have seen have not been employed by the companies in whose plants they acquired the disease for many years. It is extremely doubtful whether, at the present time, they could succeed in demands for compensation for injuries received so far in the past. Yet in each instance there is no doubt as to the nature of the injury and its source, and there is no doubt that it should be as compensable as one which gave evidence of itself during the employment.

There are no existent statistics to tell whether cases of this kind are rare or common. The difficult task of assembling them, by following until they died a group of men who, without apparent injury, have been exposed to silica dust for varying lengths of time, is urgently required.

REPORT OF CASES

CASE 1.—*Development of symptoms of silicosis twenty-three years after an exposure of four months.* H., aged 52, an executive of an oil company, seen May 19, 1930, complained of a bothersome slightly productive cough, dyspnea on even slight exertion, and indigestion.

The patient was a mining engineer who, on graduating from college at the age of 22, went to work in the lead mines in Idaho to acquire practical experience. He worked below ground for one year but did hard rock drilling for only two months. For about an equal length of time he used a wet drill. He stayed in the mining industry for several years but worked above ground in technical and administrative positions. For the past twenty years he had held administrative positions in oil well operating companies in Texas. He was perfectly well until seven years ago when, twenty-three years after his exposure to dust, he developed a slight dry cough. This remained about the same until October, 1928, when he developed a bad cold in his head, which in a few days settled in his chest. From that time on his cough was much worse and was very bothersome. He continued at his work but felt tired and weak; he had a poor appetite, postcibal epigastric distress, and a progressive loss of weight. Dec. 11, 1928, he developed severe pleuritic pains in his chest and felt so ill that he went to bed and called a physician. His temperature was found to be 100 F., and a diagnosis of pleurisy was made. He continued to have an afternoon fever. A roentgenogram showed "spots throughout both lungs." In January, 1929, he was told that he had pulmonary tuberculosis and was sent to Phoenix, Ariz. By this time he had lost 35 pounds (16 Kg.). The physician there told his wife that he had miliary tuberculosis and would live only a few months. In spite of this prognosis he improved gradually and by March 5 was able to leave the sanatorium and continued his convalescence on a ranch.

His improvement continued steadily until the time that he was seen by us. He had had no fever for twelve months.

1. Watkins-Pitchford, W.: Silicosis of the South African Gold Mines, J. Indust. Hyg. **9**: 109 (April) 1927.
2. Tatersall, Norman: The Occurrence and Clinical Manifestations of Silicosis Among Hard-Ground Workers in Coal Mines, J. Indust. Hyg. **8**: 466 (Nov.) 1926.
3. Britton, J. A.: Silicosis, a Modern Factory Hazard, J. Indust. Hyg. **6**: 199 (Sept.) 1924.
4. Russell, A. E.: Dust and Pulmonary Disease, J. A. M. A. **95**: 1714 (Dec. 6) 1930.

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His weight had increased to 175 pounds from 155 pounds (to 79.4 from 70.3 Kg.), but he was still 25 pounds (11.3 Kg.) under his normal weight. At one time during his illness a roentgenogram had shown that he had an effusion of fluid into the left pleural cavity. He complained only of a bothersome cough, which was brought on by exercise or even by talking, and of severe dyspnea on any exertion greater than walking slowly on the level. Exercise also made his hands become swollen and cyanotic.

There was no family history of tuberculosis and no known exposure to it. Examination of the chest revealed a slight lag on the right and a slight increase in the peribronchial marking throughout both lungs, with an even diffuse distribution of fine miliary nodules of increased density. The signs were characteristic of second stage pneumonoconiosis. There was no definite roentgenographic evidence of tuberculosis. Many examinations of the sputum had failed to show tubercle bacilli.

In this case there was a free interval of twenty-three years between the termination of an exposure of four months to silica dust and the appearance of the first symptoms of pneumonoconiosis. The rapid development of the severe symptoms following a pulmonary infection suggests that this, if not a necessary factor, was at least important in bringing on the manifestations of the disease.

CASE 2.—*Development of symptoms of silicosis ten years after an exposure of two years.* W. M., aged 42, a Negro hotel porter, seen at the Montgomery Ward dispensary of the Northwestern University Medical School, Oct. 24, 1930, complained of epigastric distress, weakness, cough, dyspnea and pain in the rectum, all of about eight months' duration.

Sixteen years before the onset of his present complaints the patient had worked for two years in a foundry in which his job was cleaning bath tubs with a sand blast. At the time he left this work he was perfectly well. He remained so for sixteen years. About eight months before he came to the dispensary a slight cough, which he had had for about a year, grew worse, and he began having pain about the rectum. A swelling appeared near the rectum and finally broke and discharged a large amount of pus. A sinus had persisted since. About the same time he began having epigastric distress, which was present all the time but was worse a short time after his meals. He continued growing weaker, his cough became worse, and he grew increasingly short of breath. In the eight months since the onset of his illness he had lost 30 pounds (13.6 Kg.).

His family and past histories were essentially negative. There was no known exposure to tuberculosis.

A physical examination showed that the man was emaciated and apparently seriously ill. The examination was essentially negative save for the conditions found in the lungs, abdomen and rectum. Examination of his chest revealed marked limitation in the motion of the ribs. Breathing was chiefly diaphragmatic. There were no definite areas of dulness and no marked changes in tactile or vocal fremitus. Fine moist râles, heard best after coughing, were present throughout both lungs. The intercostal and supraclavicular spaces were deeply retracted.

Examination of the abdomen showed definite tenderness in the right lower quadrant. There was a small chronic fistula-in-ano.

The temperature was 96.8 F., pulse 84, respiration 24. The red blood cells numbered 4,770,000; hemoglobin, 95 per cent, and white blood cells, 8,900. The urine was negative save for albumin, 1 plus. The Kahn reaction was ++++. The sputum was positive for tubercle bacilli.

The roentgenogram was characteristic of third stage pneumonoconiosis.

This patient, after working for two years with a sand blast, was perfectly well for sixteen years. At the end of that time he developed the typical symptoms of silicosis and tuberculosis. In this case, as in the previous one, infection seemed to be the precipitating factor. In this case the infection was definitely tuberculous; in the other no tubercle bacilli were found in the sputum and there were no roentgenographic signs suggesting tuberculosis.

It is interesting that in both cases epigastric distress was a prominent symptom.

CASE 3.—*Development of symptoms of silicosis fourteen years after an exposure of four years.* J. L., aged 47, a Polish-American laborer, seen Dec. 13, 1929, complained of cough, fever, loss of weight, weakness and night sweats.

Commencing eighteen years before, the patient had worked for four years as a grinder in a knife shop. He did wet grinding without precautions. He had then worked for two years at nondusty work in a foundry and for the past twelve years had been a laborer in a shipping department. He had been perfectly well when he stopped work as a grinder and had continued so until a few weeks before he was seen by us. He then developed an acute upper respiratory infection of the influenza type and soon after that the signs and symptoms of extensive bronchitis. Roentgenograms taken at this time showed extensive pneumonoconiosis with a partial pneumothorax at the base of the left lung. Several sputum examinations failed to reveal tubercle bacilli.

He recovered gradually from the acute infection and is now doing light work. He is relatively dyspneic and has a chronic cough.

In this case there was an interval of fourteen years between the cessation of the dusty work and the appearance of the symptoms of pneumonoconiosis. In this case, as in the preceding two, the onset of symptoms was coincident with an acute respiratory infection. In this case there was no evidence of tuberculosis.

CASE 4.—*Development of symptoms of silicosis ten years after an exposure of ten years.* I. B., white, Bohemian, a laborer, first seen in 1923, at which time he was 50, was found to have an extensive pneumonoconiosis with tuberculosis. His symptoms were of a few months' duration. He became steadily worse and died three years later.

For ten years, between the ages of 30 and 40 years, the patient worked as a knife grinder on a large wet sandstone. He was then transferred to a shipping department in which he did miscellaneous trucking and laboring work. There was a free interval of ten years between the cessation of his exposure to dust and the development of the symptoms of silicosis.

In this case the patient was perfectly well for ten years after working for ten years as a knife grinder. The onset of his symptoms of pneumonoconiosis was coincident with an infection with the tubercle bacillus.

SUMMARY AND CONCLUSIONS

Most clinical and statistical studies of silicosis have been made on groups of men still employed in dusty trades. From such statistics one cannot say what is the late effect of short exposures. In this paper we have reported four cases of silicosis or silicosis and tuberculosis which developed many years after relatively short exposures. These instances suggest the necessity of revising the conception of the length of exposure necessary to produce the disease and make it seem probable that after relatively short exposures sufficient dust may be deposited in the lungs to set up a progressive fibrosis, which only after many years becomes sufficiently extensive to produce symptoms. They tend to indicate that men in the work develop symptoms only after many years of exposure, not because that length of exposure is necessary but because it takes a long time for the disease to develop.

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A SYSTEM OF WEIGHED HIGH CARBOHYDRATE DIETS FOR DIABETES *

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Following the report of Sansum's [1] encouraging experiences in the use of relatively high carbohydrate-metabolic clinic of the New York Post-Graduate Hospital. The early results were so promising as to warrant the continued use of such ratios, and a simple and convenient system of diets thus became necessary. Those produced herewith were compiled, and during two years of use they have proved highly satisfactory.

The general arrangement is the same as that first employed by Mosenthal [2] in the preparation of diabetic diets based on the Woodyatt [3] formulas. Six diets are

TABLE 1.—*Compilation of Ratios in Diet*

Diet	Diet in Grams: Carbohydrate	Protein	Fat	Calories	Meals	Vegetables, 3% CH. 1% P.	Vegetables, 10% CH. 1% P.	Vegetables, 20% CH. 3% P.	Fruits, 10% CH.	Fruits, 15% CH.	Fruits, 20% CH.	Fruits, 70% CH.	Cereals, Cooked, 10% CH.	Cereals, Dry, 75% CH.	Meat and Fish, 20% P. 5% F.	Meat, Lean, 20% P. 6% F.	Fish, 20% P. 3% F.	Butter, 80% F.	Cream, 30% F.	Eggs	Bread	Milk	Cheese, American	Cheese, Cottage
H. C. 1.....	90	30	45	910	Breakfast	...	...	...	200	...	...	...	100	...	...	...	...	...	60	...	...	...	...	...
					Lunch	100	100	...	100	...	...	...	...	...	...	...	...	12	...	...	...	...	...	...
					Supper	100	100	...	100	...	...	...	...	...	...	...	100	15	...	...	...	200	...	...
2.....	140	45	70	1,400	Breakfast	...	...	...	200	...	...	...	...	30	...	...	...	6	60	...	30	...	...	...
					Lunch	100	100	...	...	100	...	...	...	...	...	...	...	12	30	...	...	200	...	...
					Supper	200	100	...	130	...	...	...	...	...	...	...	...	12	30	1	...	200	...	50
3.....	180	60	90	1,821	Breakfast	...	...	...	200	...	...	...	200	...	...	...	...	12	60	...	60	...	...	...
					Lunch	100	100	...	100	...	...	...	...	...	...	...	...	12	60	1	30	200	...	...
					Supper	200	100	...	130	...	...	...	...	...	...	100	...	12	30	...	30	200	...	...
4.....	230	75	115	2,320	Breakfast	...	...	...	...	200	...	...	...	30	...	...	...	12	90	...	60	...	...	...
					Lunch	100	100	100	100	...	...	...	...	...	...	...	...	18	60	1	30	200	...	...
					Supper	100	...	100	...	...	100	...	...	...	100	...	...	10	60	...	30	200	...	20
5.....	270	90	135	2,831	Breakfast	...	...	...	100	...	100	...	...	60	...	...	...	18	90	...	60	...	...	...
					Lunch	200	100	...	200	...	...	...	...	...	...	...	...	20	60	1	60	200	10	...
					Supper	100	...	100	100	...	...	30	...	...	100	...	...	20	60	...	30	200	...	40
Reducing...	118	60	30	1,009	Breakfast	...	...	...	100	...	...	...	100	...	...	...	...	5	...	...	30	100	...	...
					Lunch	200	...	100	100	...	...	...	...	...	...	...	...	...	...	1	...	100	...	50
					Supper	100	100	...	100	...	...	...	...	...	...	100	...	...	...	...	...	200	...	20

FRUITS

10% Carbohydrate

Blackberries
Cranberries
Currants
Gooseberries
Lemon juice
Muskmelon (edible portion)
Peaches, fresh
Pineapple, fresh
Strawberries
Watermelon
Oranges (edible portion)
Grapefruit (edible portion)

15% Carbohydrate

Apples
Blueberries
Grapes, fresh
Peaches, canned
Pears, fresh
Raspberries
Watermelons (edible portion)

20% Carbohydrate

Apricots, canned
Bananas
Cherries
Huckleberries
Nectarines
Pears
Plums

70% Carbohydrate

Apricots, dried
Dates
Figs
Prunes, dried
Peaches, dried
Raisins

VEGETABLES

3% Carbohydrate, 1% Protein

Artichokes, canned
Asparagus
Beans, string
Beans, wax
Beet greens
Brussels sprouts
Cabbage
Cauliflower
Celery
Cucumbers
Eggplant
Endive
Kohlrabi
Leeks
Lettuce
Marrow
Mushrooms
Olives, ripe
Pickles
Radishes
Sauerkraut
Sorrel
Spinach
Swiss chard
Tomatoes
Watercress
Rhubarb

10% Carbohydrate, 1% Protein

Beets
Carrots
Dandelion greens
Green peas, canned
Horseradish
Okra
Olives, green
Onions
Parsnips
Pumpkin
Squash
Turnip

20% Carbohydrate, 3% Protein

Artichokes, fresh
Beans, baked
Beans, baked, canned
Corn, green
Corn, green, canned
Green peas, fresh
Lima beans
Macaroni, cooked
Potatoes
Rice, boiled

CEREALS

Cooked, 10% Carbohydrate

Farina
Oatmeal

Dry, 75% Carbohydrate

Corn flakes
Rice flakes
Puffed rice
Shredded wheat
Puffed wheat

MEAT, MEDIUM FAT

20% Protein, 20% Fat

Beef, boiled
Beef, canned
Beef, roasted
Beef steak
Beef tongue
Capon
Chicken
Duck
Goose
Lamb chops
Lamb roast
Mutton
Mutton chops
Squab
Turkey
Veal

MEAT, LEAN

20% Protein, 6% Fat

Lean portions only of foregoing

FISH

20% Protein, 3% Fat

Bass, black
Bass, sea
Bass, striped
Bluefish
Codfish, fresh
Codfish, salt
Flounder
Haddock
Halibut
Perch, yellow
Pollock
Porgy
Shad roe
Smelt
Trout
Weakfish
Whitefish

20% Protein, 12%-20% Fat

Butterfish
Halibut, smoked
Herring, smoked
Mackerel, fresh
Mackerel, salt
Salmon, canned
Salmon, fresh
Sardines, canned
Shad

FOODS WITHOUT FOOD VALUE

(May be taken as desired)

Agar-agar
Broth, skimmed
Clear coffee
Clear tea
Cocoa shells
Cracked cocoa
Liquid petrolatum
Starch free bran biscuits
Starch free bran cereal
Thrice boiled vegetables
Postum

WEIGHT EQUIVALENTS

30 Gm. = 1 ounce
1 egg weighs 50 Gm.

HOUSEHOLD MEASURES

1 flat teaspoonful = 5 Gm.
1 flat tablespoonful = 15 Gm.
1 heaping tablespoonful, cut meat or fish = 30 Gm.
1 water glass full = 250 Gm.

fat ratios in the dietetic management of diabetes, some preliminary observations with similar diets were made in the summer of 1928 in the medical wards and in the presented. A summary of the carbohydrate, protein and fat content of each, together with its caloric value, is appended to the left for ready reference. The food

* From the Medical Service of the New York Post-Graduate Hospital.

1. Sansum, W. D.; Blatherwick, N. R., and Bowden, Ruth: The Use of High Carbohydrate Diets in the Treatment of Diabetes Mellitus, J. A. M. A. **86**: 178-181 (Jan. 16) 1926.

2. Mosenthal, H. O., in Tice's Practice of Medicine, Hagerstown, Md., W. F. Prior Company, Inc. **9**: 122, 1926.

3. Woodyatt, R. T.: Objects and Method of Diet Adjustment in Diabetes, Arch. Int. Med. **28**: 125 (Aug.) 1921.

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amounts are given in multiples of ten in most instances, and amounts of 100 or 200 Gm. are used frequently for the sake of convenience and simplicity. The foods are grouped below according to the carbohydrate, protein and fat contents,[4] so that a fairly wide choice of foods can be made without in any way causing a deviation from the accuracy of the diet. I have found that this wide latitude of choice is greatly appreciated by the patient.

It will be further observed that the proteins are listed in multiples of 15 according to Mosenthal's original lists. The fat contents are approximately one and a half times the protein and, in accordance with Sansum's suggestion, the carbohydrate is twice the fat. The caloric values range from 910 to 2,831 calories, and in each diet it happens by coincidence that the caloric value is approximately ten times the carbohydrate content in grams. The approximate percentages of the daily food distribution are shown in table 2.

TABLE 2.—*Daily Food Distribution*

Meal	Carbohydrate, per Cent	Protein, per Cent	Fat, per Cent
Breakfast	40	10	25
Lunch	30	40	35
Supper	30	50	40
	100	100	100

The reducing diet of 1,009 calories is added for use by those patients in whom it is desired to produce weight reduction without the danger of ketosis. The fat is low, the protein is adequate for maintaining nitrogen equilibrium in the average individual, and the diet as a whole is highly antiketogenic. Such a diet tends to spare body protein and produce more ready utilization of body fat for purposes of heat and energy.

COMMENT

Details of results obtained from the use of these diets are reserved for a future communication. In general, the benefits seen have greatly exceeded expectations. Based on experiences with a considerable number of patients seen during the past two years or longer, where careful comparisons have been possible between these and the former relatively high fat-low carbohydrate diets, it is my belief that the higher carbohydrate-fat ratios possess many distinct advantages and will become increasingly popular with specialists in diabetes as time goes on.

10 West Forty-Seventh Street.

4. Foods are here listed according to average values and are taken largely from bulletin 28 of the United States Department of Agriculture.

The Metabolism of Starvation.—The starving animal first draws on his stores of carbohydrate (glycogen) and of "deposit protein"; these are soon exhausted (or almost so); he then burns his body fat. If he is well supplied with fat, he subsists for a time almost exclusively on this, and destroys only the minimal quota of body protein. It should be borne in mind, however, that at no time, even in the presence of abundant stores of fat, does the protein destroyed fall below a certain minimum, the "wear and tear quota." As the animal exhausts his body fat, he draws more and more on his body protein, and at last, when all fat has been consumed, he lives solely at the expense of the protein. He draws on his several tissues to degrees varying in the inverse order of their physiologic importance, taking first those organs which are of least importance and conserving almost up to the last his most vital structures. When the latter are drawn on, death ensues.—McLester, J. S.: Nutrition and Diet in Health and Disease, Philadelphia, W. B. Saunders Company, 1931.

OBSERVATIONS ON THIOCYANATE THERAPY IN HYPERTENSION *

WILLIAM C. EGLOFF, M.D.
LYMAN H. HOYT, M.D.
AND
JAMES P. O'HARE, M.D.
BOSTON

During the past few years there have appeared several references in the medical literature indicating favorable results from the use of thiocyanate in the treatment of hypertension. Certain commercial drug firms are now exploiting the favorable impression created, by placing on the market various preparations of this drug, often combined with other substances. Our results with sodium thiocyanate have been so unfavorable, even when no allowance is made for the normal fluctuations in blood pressure in our hypertensive patients, that it seemed worth while to put them into the literature.

The thiocyanates, especially the sodium and potassium salts, were found by Pauli [1] to lower the blood pressure in patients with primary hypertension. These salts were first used in this country by Bentley and LeRoy,[2] who obtained quite similar results. More recently Nichols,[3] Smith and Rudolf,[4] Gager,[5] Palmer, Silver and White [6] and Fineberg [7] have reported beneficial results from the use of thiocyanate in the treatment of hypertension. Palmer and Sprague [8] and Borg [9] have reported the occurrence of certain disagreeable side effects from the use of thiocyanate.

We have been using sodium thiocyanate in the renal clinic of the Peter Bent Brigham Hospital for the past year. Here we have available a comparatively small but well controlled number of hypertensive patients. We believe that such a series of cases presents rather ideal conditions for testing the efficiency of any drug on the blood pressure, because we know the normal variations of pressure in these patients. Thus we can avoid the all too frequent error of attributing to the drug the moderate drop in pressure which more rightly should be assigned to the normal variations.

Our present series of cases is composed of twenty-five ambulatory patients, all of whom have been followed in the clinic from two to ten years. Of these twenty-five patients, twelve have primary hypertension, eleven have hypertension with hypertensive heart disease, and two have hypertension with moderate renal involvement.

The method of treatment has been to discontinue all other medication and to administer the thiocyanate in diminishing doses for a period of three weeks. In the beginning we used potassium thiocyanate but discon-

* From the Renal Clinic of the Peter Bent Brigham Hospital. Aided by a gift from the Fund for Research in Renal and Vascular Diseases.

1. Pauli, W.: Ueber Ionenwirkungen und ihre therapeutische Verwendung, München. med. Wchnschr. **1**: 153, 1903.
2. Bentley, W., and LeRoy, B. R.: The Solvent Action of the Sulphocyanates upon the Lime and Magnesium Deposits in the System, New York M. J. **88**: 210 (Aug. 1) 1908.
3. Nichols, J. B.: The Pharmacologic and Therapeutic Properties of the Sulphocyanates, Am. J. M. Sc. **170**: 735 (Nov.) 1925.
4. Smith, A. G., and Rudolf, R. D.: The Use of Sulphocyanate of Soda in High Blood Pressure, Canad. M. A. J. **19**: 288 (Sept.) 1928.
5. Gager, L. T.: Incidence and Management of Hypertension with a Note on Sulphocyanate Therapy, J. A. M. A. **90**: 82 (Jan. 14) 1928.
6. Palmer, R. S.; Silver, L. S., and White, P. E.: The Clinical Use of Potassium Sulphocyanate in Hypertension, New England J. Med. **201**: 709 (Oct. 10) 1929.
7. Fineberg, M. H.: Potassium Thiocyanate in the Treatment of Patients with Hypertension, J. A. M. A. **94**: 1822 (June 7) 1930.
8. Palmer, R. S., and Sprague, H. B.: Four Cases Illustrating the Untoward Symptoms Which May Be Produced by the Use of Potassium Sulphocyanate in the Treatment of Hypertension, M. Clin. North Am. **13**: 215 (July) 1929.
9. Borg, J. F.: Experiences in the Use of the Sulphocyanates, Minnesota Med. **13**: 293 (May) 1930.

tinued it with the third patient because of the distressing weakness and nausea that occurred in these patients. The remaining twenty-two patients were given sodium thiocyanate in an 8 per cent aqueous solution. The dosage was as follows: first week, 1 Gm. daily; second week, 0.6 Gm. daily; third week, 0.3 Gm. daily. This is the dosage recommended by Nichols.[8] Eight of the patients discontinued the medication after one week because of the distressing symptoms, but even so they should have taken sufficient amounts of the drug to show a lowering of the blood pressure, according to the report of Smith and Rudolf,[4] who reported therapeutic results with only 0.6 Gm. daily within this period.

Our observations concerning the results of thiocyanate medication have been divided into three parts: (1) the effect on the blood pressure, (2) the effect on the common symptoms complained of by hypertensive patients, namely, headache, dizziness and nervousness, and (3) the disagreeable side effects.

The blood pressure base line, from which we measured any departure caused by the thiocyanate, was the average minimal systolic and diastolic pressures observed during the preceding year. It seemed to us that such a control period was far better than one of only a few days or weeks. In only two of our patients was the blood pressure lowered 20 or more millimeters of mercury (systolic or diastolic or both) from this base line. One was a man, aged 64, diagnosed as having hypertension, arteriosclerosis and hypertensive heart disease. His blood pressure base line was 240 mm. systolic and 130 mm. diastolic. Following the course of thiocyanate treatment it was 210 mm. systolic and 120 mm. diastolic. This is certainly not a remarkable lowering of the pressure. The other patient was a woman, aged 40, diagnosed as having hypertension and hypertensive heart disease. Her average blood pressure was 225 mm. systolic and 140 mm. diastolic before treatment, following which it was 180 mm. systolic and 100 mm. diastolic. Of the remaining twenty-three, sixteen showed no conclusive change in blood pressure in either direction; seven showed a moderate rise, presumably due to the disagreeable effects of the thiocyanate.

The effect of thiocyanate therapy in alleviating symptoms such as headache, dizziness and nervousness was equally disappointing, occurring in only two patients. These were the same two patients who showed the drop in blood pressure.

With regard to the disagreeable effects from the administration of sodium or potassium thiocyanate, we were surprised to find that every patient complained of one or more distressing symptoms, arising from two to five days after the drug was commenced. Nausea was the most common symptom mentioned, and this was present in all of the cases to a greater or lesser extent. Nausea to the extent of vomiting occurred in thirteen cases. The other common complaints were diarrhea, increased nervousness and apprehension. Ten patients complained of intestinal discomfort and diarrhea, and fifteen noticed a definite increase in their nervousness, together with peculiar "ringing" noises in their heads. One patient, following the administration of potassium thiocyanate, developed disorientation as to time and place. Borg [9] also has observed the occurrence of disorientation during thiocyanate treatment. Our patient was a woman, aged 49, with a blood pressure of 235 mm. systolic and 130 mm. diastolic. The disorientation occurred three days after the thiocyanate was commenced and disappeared within two days after it was discontinued. It is possible that this attack was due to a coincidental cerebrovascular disorder. It is to be noted, however, that this patient gave no history of previous periods of disorientation and has had none since.

It is quite evident that one should not draw too definite conclusions concerning the value of sodium thiocyanate in the treatment of hypertension from such a small series of cases. However, our patients were, without doubt, better controlled than most, because of our previous long observations on them. Our results with this treatment, interpreted in the light of this conservative control and with due consideration for the disagreeable symptoms produced, were so nearly uniform that they should at least serve as a warning against too great enthusiasm for this drug. Out of our twenty-five patients only two reacted favorably to the administration of sodium thiocyanate and even in these two the reaction was not particularly striking or different from what we see in many other patients who have had no treatment whatever. In the remaining twenty-three cases, not only did the drug fail to lower the blood pressure or relieve the symptoms, but it produced very disagreeable side effects.

CONTROL AND SALE OF PROPRIETARY REMEDIES

A NEW YORK SURVEY AND PLAN

SHIRLEY W. WYNNE, M.D., DR.P.H.
Commissioner of Health, City of New York
NEW YORK

One of the most baffling and serious problems confronting the regulation and control of drugs in any large city and, for that matter, in rural sections, is the suppression and elimination of falsely labeled and falsely advertised proprietary medicines and treatments. Time and again, various agencies, from city departments of health to the Federal Trade Commission, have through legislative or other action forced certain drugs or medicines out of existence, only to have them disconcertingly reappear, their composition in no manner changed, but their advertising cunningly contrived to evade the law.

Quacks and charlatans are notoriously skilful at misrepresentation. They have been quick to take advantage of every progressive development in advertising and psychology. The result is that today, despite national, state and local restrictions that have been devised to control charlatans and misrepresented proprietary mixtures, the problem is as great as ever. In fact there is an added complication in that products are now sold for imaginary diseases as well as for real ones. Advertising copywriters vie with one another to invent new ailments with catchy popular names.

In New York, as in most large centers, the problem is particularly acute because of the great number of foreign-language groups, the difficulty of preventing quack advertising over the radio and in certain types of newspapers and magazines, and the recognized inability of present machinery to cope with the situation. Realizing that something of a consequential nature was required, but desiring to get the best possible view of our own present shortcomings and suggestions for approaching the proprietary drug situation before undertaking important changes in our methods, I invited Dr. Samuel M. Gordon, secretary of the Council on Dental Therapeutics of the American Dental Association, to make a complete survey and offer suggestions.

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The results of this study, placed before the New York City Department of Health in memorandum form by Dr. Gordon, constitute in the main a plan for the control of proprietary drugs applicable to virtually any city or state. The proposal appears to me to be of so much general interest and importance as to be worth summarizing here, particularly in the portions applicable to any medical jurisdiction.

"The heyday of the patent medicine is past," Dr. Gordon declares in his general discussion of the problem, "Yet in its larger aspects patent medicine exploitation is a more subtle affair today than it was some twenty years ago. The rank exploitation of patent medicines for certain deep-seated and incurable diseases as cancer, tuberculosis, pernicious anemia, etc., has been replaced by a more subtle and insidious exploitation of articles for various groups of ill defined conditions, based on an evasive appeal to the health desire of the public.

"This change of attitude on the part of alert patent medicine exploiters has no doubt been forced by the enactment of the Food and Drugs Act of the national government and of the various states; the extralegal and educational activities of such organizations as the American Medical Association, the American Society for the Control of Cancer, the National Tuberculosis Association and many others. Outlandishly quackish claims are thus less common than before the initiation of these activities. Hence patent medicines are exploited by means of subtly written advertisements in such manner that the uncritical and none too careful reader is allowed to read into general and as a rule misleading statements that he or she is suffering from disease or conditions for which a patent medicine in question possesses curative powers.

"As such, these exploitations are within the wording of the law, but morally they are contrary to the spirit which animates the passage of a law for civic betterment—and thus immune from prosecution."

It is only fair to point out in this connection that there are also many conscientious advertising men who strenuously object to this type of harmful, misleading advertisement. Just how this type of advertisement affects decent advertising men was well expressed some years ago in *Printers' Ink*, a publication devoted to the interests of advertising:

> "Dr. Osler on Tuberculosis" is the headline of an advertisement that probably does quote exactly what Dr. Osler had to say about one phase of pulmonary disease. By careful wording, the inference is built up that the preparation advertised meets a condition named by the eminent physician in connection with the treament of tuberculosis. Actually, the advertisement does not set up the claim that the patent remedy is a positive cure for tuberculosis, but its indirect claims are probably more appealing to victims of the Great White Plague than a bold, direct claim would be. The continuance of that kind of copy indicates that the ever-hopeful consumptives send on their dollars. . . . If there is anything more cruel and outrageous than consumption cure advertising, the Schoolmaster has yet to hear of it. If the bald facts were not before us, it would be hard to believe that any publisher or advertising man would want to pay for his cigar or his golf privileges with dollars wrung from that source. How long, O Lord, how long?

Broadly, Dr. Gordon's proposed plan calls for attack on the problem on three fronts. Speaking specifically of the New York situation, he advised:

1. The establishment of an information and educational unit for the dissemination of matter on public health and on the "patent medicine evil."

2. Reorganization of the present division of drug inspection of the department of health and the chemical laboratory, making this body independent of the division of food inspection and responsible directly to the commissioner of health.

3. Revision of portions of the sanitary code of the department of health to provide for more adequate regulation of the sale of drugs to the public which competent medical authorities hold to be potentially harmful, either directly or through their habit-forming properties, and those drugs which competent medical opinion holds should be used by nonmedical persons only on the written order of a physician or a dentist.

In the case of New York, Dr. Gordon recommended that the information unit be combined with the division of drug inspection, making the entire unit answerable to the commissioner. In this way the machinery for controlling drugs and patent medicines can be made into a mobile and effective body, not connected with or dependent on any other division or department and consequently able to give full attention to the business of protecting the public from charlatans and misrepresented products.

The work of the information and educational unit, as outlined by Dr. Gordon, may provide the strongest and most far-reaching weapon in the offensive, for "unsocial exploitation must be met in part by a consistent and persistent educational campaign."

There is already available a large fund of information on patent medicines and drugs being sold to the public in the publications of the American Medical Association, the U. S. Department of Agriculture, the U. S. Post Office Department, the Federal Trade Commission, the National Better Business Bureau, and other such active groups. This information, carefully compiled and indexed, would serve as the material for the information unit's campaign.

A start in this direction has already been made in New York by the compilation of a local "index expurgatorius" by the department of health, under the direction of Mr. A. E. Backman of the National Better Business Bureau. This is a task that any health authority might well undertake, for the assembled material can be used effectively only when it is at the department's finger tips.

As an aid to improving this index, and keeping it up to date, Dr. Gordon suggested:

1. That the department arrange to receive publications from the various state health departments that are doing excellent work in this direction, notably those of the Connecticut and North Dakota experiment stations and the New Hampshire State Board of Health.

2. That a competently trained person be assigned to give his full time to the direction of this work, both caring for the index and handling the information and publicity. This person should preferably be one with scientific training and a penchant for journalism.

3. That this director prepare, under the supervision of the head of the proposed drug administration unit, articles for newspapers and magazines of timely interest on patent medicines.

4. That private citizens be invited to write to the department for information and advice on specific patent medicines in which they may be interested, the questions to be answered by personal correspondence or through official publications. These answers should not be confined to mere statements of fact concerning chemical composition but should also contain medically sound

opinions concerning the therapeutic effects or possible harmfulness of the product.

5. That the files containing the patent medicine index be permanently placed with the proposed drug administration unit so that information contained therein may be correlated with the findings of the chemical laboratory and drug inspection division. Also that the file be cross-indexed for rapid reference under such general headings as cancer cures, tuberculosis cures and asthma cures.

Dr. Gordon further suggested in this connection that a compilation be made of advertising material used in connection with the sale of each drug or mixture. In the advertising, he points out, may often be found the heart of the entire matter, and the department should have at its finger tips samples of all of the copy used by a given company. To handle this work effectively, it may be necessary to employ the services of a clipping bureau. In addition, advertisers of medical preparations should be invited to submit samples of their advertising for scrutiny and filing.

With the file in shape, the real work of the division of information and publicity can begin.

"It can generally be agreed that patent medicine exploitation may be controlled by effective educational and publicity material," writes Dr. Gordon of this phase of the work. "The evils of the patent medicine business are only brought home to an individual when he is directly affected by it. Jones does not care about the patent medicine evil in the abstract, but when he or one of his family suffers evil consequences from patent medicines it becomes a serious affair with him. Hence the educational and publicity activities of the department must be as personalized as possible.

"The existence of information mentioned in the preceding section brings to the fore a number of suggestions for effective service. This material may serve as a source for a number of popular articles by expert journalists on the proposed drug administration unit. The material available should be considered as starting points to make the reader conscious of how the patent medicine evil applies to him. Articles on certain of the incurable diseases or conditions which require expert diagnosis and care may be used as the starting point for a series of articles and each article concluded by mentioning by name a number of quack remedies on which the department has information.

"Facilities might be accorded to representative writers to enable them to prepare articles descriptive of the department's work in this sphere."

The possibilities for educational publicity in this material, handled by a shrewd and experienced newspaper man as director, might well be virtually endless. The potency of this weapon lies in the fact that it reaches exactly the same persons reached by the subtle and misleading advertising of patent medicine concerns. If charlatans advertise over the radio, let the health department meet their attacks by the same medium. If they use the newspapers, skilful publicity work will place the health department's reply in the same publications. If the advertisers are adroit in seeming to say what actually they do not, let the publicity of the health department be equally adroit in pointing out the fraud and deception.

This type of publicity work, it is suggested, may be only one phase of the information unit's field. Much can be done by educating newspaper and magazine editors by direct contact. Generally it is true that these men are sufficiently public spirited to cooperate readily with the health authorities when the harm in misleading advertising has been pointed out to them.

Dr. Gordon warns, however, that, important as this publicity work is, it must not be allowed to interfere with or supersede the more fundamental achievements of the rest of the drug administration unit.

An important place should be occupied by the chemical laboratory, the activities of which are potentially useful in both the educational and the regulatory program for drug control. With regard to the New York situation, where at present the drug laboratory and the milk inspection laboratory are combined, Dr. Gordon found much to be desired, particularly in that the quarters are unsuitable for careful, accurate work, the staff is small and underpaid, and too little opportunity is given for individual research.

He suggested that the chemical laboratory for the drug administration unit be completely separated from that used by the milk inspection unit. At least six full-time chemists should be assigned to make the necessary investigations of drug products under the director of the proposed unit. It is suggested that the director be one "who has had wide experience in drug investigation, and one who possesses tact and experience in meeting people. A Ph.D. in chemistry with the necessary experience should direct the new bureau. He should also have the capacity of a good trial witness. This might conserve the time of the other chemists, much of which is now spent in useless attendance at district courts. In this connection it is also recommended that arrangements be made between the department and the judiciary that the affidavit of a chemist be accepted as testimony."

Dr. Gordon believes that the chief chemist in charge of the drug laboratory should have virtually the same qualifications as those outlined for the director of the unit. On him would devolve the administrative detail of the laboratory.

As for the technical personnel of the laboratory, a plan of grading according to rank is suggested similar to that prevailing in the civil service of the national government. The chief chemist should be in the senior chemist grade. Salaries should also be approximately the same as those paid in the government service, with local variations in the cost of living taken into consideration.

The personnel and approximate salaries suggested for New York are one senior grade chemist, $4,500-$6,000; one chemist, $3,500-$4,400; one associate chemist, $2,400-$3,400; three assistant or junior grade chemists, $2,300-$2,800; one technical assistant, $1,500-$2,000.

In addition to the payment of adequate salaries and the provision of clean, light quarters with suitable equipment, Dr. Gordon urges that allowance for individual research from time to time, with the opportunity for each chemist to present for publication an article in a professional journal under his own name, would aid materially in maintaining the morale of the staff and adding to the prestige of the department.

The portion of the sanitary code of New York City dealing with the regulation of drugs and proprietary medicines was found by Dr. Gordon to be on a high level but, as he pointed out, no matter how excellent the regulations in these matters, they are ineffective unless conscientiously carried out. To improve enforcement it is suggested that the drug inspection bureau be divorced from the food and drug inspection division and placed in

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the proposed drug administration unit, insuring immediate correlation of the educational, investigational and regulatory aspects of the program under one head.

In addition, a revision of the whole sanitary code along general lines is advised, rules similar to those of the Council on Pharmacy and Chemistry of the American Medical Association being suggested. If these rules could be legalized, writes Dr. Gordon, and a competent body of scientists and physicians organized to advise the department on the basis of these regulations, "the evils of proprietary remedy exploitation might be done away with."

Until such a time as this innovation of government control comes about, Dr. Gordon suggests that it might be possible and desirable "to prohibit or to regulate as far as possible the sale of whole classes of drugs, such as contraceptives, aphrodisiacs, weight reducers, asthma cures, cancer cures, tuberculosis cures, rheumatism and influenza cures and other classes of preparations, whether the claims for such preparations are directly stated or inferred, either on the label or in the advertising issued in connection with them.

"It is also suggested that immediate steps be taken to revise that portion of the sanitary code dealing with the direct sale to the public of prohibited drugs with special reference to the barbitals (all derivatives of barbituric acid and preparations containing them) and other hypnotic drugs; and that preparations which contain cinchophen, neocinchophen (because of atrophy of the liver) and thyroid-containing preparations be included in the prohibited list at present. Further study might indicate other potentially harmful drugs."

The administration of such regulations, according to the plan, would depend on the advisory commission earlier mentioned.

Another suggested change relates to the registration of proprietary articles, particularly the present provision which states that information submitted by the "proprietor" is to be held confidential by the department. "This," writes Dr. Gordon, "places an undue burden on the department and theoretically denies to the public information to which it ought to be entitled." He suggests that the information be made a matter of record, pointing out that proprietors may protect their formulas from theft by patent.

In connection with this suggested change, Dr. Gordon would also set a limited period for registration, in order to require reregistration at regular times, a year or so apart. This would prevent frequent or injurious change of formula unknown to the department. At present the regulations provide for registration for an unnamed period.

In addition to the general plan for the control of proprietary medicines, Dr. Gordon's report also contains a suggestion for a "home remedy chest" similar to that proposed by the late Dr. Harvey W. Wiley. Such a chest would contain simple home remedies that might be used in cases in which the services of a physician may not be required.

To prepare the list of home remedies to be included in the standard chest, it is proposed that the department invite a number of practitioners to suggest drugs and to prepare simple directions for their use. After the list is prepared, arrangements may be made to acquaint every family head with the contents. In order to prevent exploitation, the plan calls for an invitation to manufacturers to put out such a chest at a fixed, fair price, the department to exercise supervision over the written material issued in connection with the chests.

TREATMENT OF UNDULANT FEVER WITH AN AUTOGENOUS ANTIGEN *

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C. F. MAGEE, M.D.
AND
F. M. LEITCH, M.D.
MOSCOW, IDAHO

The present status of our knowledge of the treatment of undulant fever is notably deficient; consequently any method of attack that seems hopeful is worthy of further study. In general, the curative treatment is symptomatic, comparing with the regimen followed in the treatment of typhoid. We are reporting on a method that resulted in the sudden termination of an infection by *Brucella suis* (Traum) in the hope that it may be tried by others.

A review of the literature shows that antiserums, parasitotrophic chemicals, and vaccines and bacterins, either specific or nonspecific, have been used experimentally with varying degrees of success in the treatment of this disease. The results of the use of antiserums have in general been disappointing. Chemotherapy has been restricted largely to the intravenous injection of dyes. Of these, mercurochrome-220 soluble as used by Gregory and Gage and others,[1] and acriflavine hydrochloride as employed by Izar and others [2] and more recently by Hoffman, have been attended by more or less beneficial results. These methods of treatment are still in the experimental stage, and the value of such intravenous injections is probably dependent on nonspecific immunity reactions rather than on antiseptic activity as such. More recently Leavell [3] has reported on the administration of the dyes thionine and methyl violet, both orally and by enemas, for persistent infection in the gastro-intestinal tract.

Vaccine therapy has been attempted with varying results. Castellani [4] was one of the first to employ vaccines made from caprine strains or from combinations of *Brucella melitensis* with the typhoid and paratyphoids. Khaled [5] secured marked improvement in three cases treated with a vaccine of *Brucella abortus* organisms. More recent investigations by Cazalas,[6] who used a combination treatment of bouillon culture filtrate and melitococcus vaccine, by Angle,[7] who in a series of ten cases used a mixed vaccine of pathogenic bovine and swine strains, by Budtz-Olsen,[8] who employed nonspecific therapy by using typhoid vaccine in ten cases, and by Leavell,[3] who used an autogenous vaccine in two of his cases without permanent improvement, have served to revive the interest in the vaccine method of treatment of this disease.

* From the Department of Bacteriology, University of Idaho, and the Inland Hospital.

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2. Izar, G., and Mastrojeni, G.: Chemotherapy of Malta Fever, Riforma med. **43**: 100 (Jan. 31) 1927. Darré, H., and Lafaille, A.: Bull. Acad. de méd., Paris **100**: 999 (Oct. 16) 1928. Hoffman, A. M.: Treatment of Undulant Fever with Acriflavine, J. A. M. A. **92**: 2169 (June 29) 1929. Kopelowitz, J. C.: Undulant Fever: Case Treated with Acriflavine Intravenously, J. Missouri M. A. **26**: 444 (Sept.) 1929.

3. Leavell, H. R.; Poston, M. A., and Amoss, H. L.: Administration of Thionine and Methyl Violet in Intestinal Brucella Infection, J. A. M. A. **95**: 860 (Sept. 20) 1930.

4. Castellani, Aldo; and Taylor, F.: Tr. Roy. Soc. Trop. Med. & Hyg. **9**: 25, 1915-1916; Brit. M. J. **2**: 356 (Sept. 15) 1917.

5. Khaled, Z.: J. Hyg. **22**: 335 (March) 1924.

6. Cazalas, X.: Undulant Fever, Paris méd. **2**: 161 (Aug. 25) 1928.

7. Angle, F. E.: Treatment of Undulant Fever with Vaccine, J. Kansas M. Soc. **30**: 323 (Oct.) 1929.

8. Budtz-Olsen, J.: Undulant Fever, Ugesk. f. læger **92**: 596 (June 19) 1930.

A group of French investigators have in recent years followed a system of vaccine treatment which in their hands gave satisfying results. Courtois-Suffit [9] was able to effect a cure in a case of undulant fever of three months' duration by a single injection of a preparation described as an endoprotein extract of *Brucella abortus*. Cambessédès,[10] using a similar product, obtained an immediate termination of the disease in a case of five months' standing. Liège [11] in another case of five months' duration used an endoprotein extract of *Brucella abortus* successfully. Cambessédès and Garnier [12] have summarized the work of these authors and additional cases in which either extracts of *Brucella abortus* organisms or heavy suspensions of bacterial substance, obtained by grinding great numbers of *Brucella abortus* organisms in sodium chloride, constituted effective vaccines. Because of some points of similarity in the method of production and dosage used of the vaccines in the foregoing cases and ours, the work of the group will be referred to again.

REPORT OF CASE

L. G., a man, aged 23, a farm laborer, entered the service of Dr. C. F. Magee from Walla Walla, Wash., with the complaint of fever, vertigo, epistaxis, generalized aches and pains and night sweats of two weeks' duration, Aug. 17, 1930. He had consulted, three days previously, a local physician who

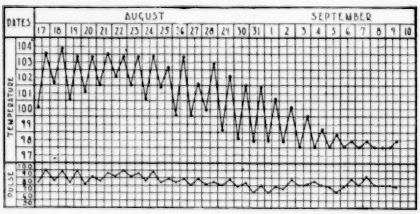

Chart 1.—Temperature and pulse record during primary attack while hospitalized.

had diagnosed his illness as a well advanced case of typhoid. Physical examination revealed rose spots and a moderately enlarged spleen. His weight was 160 pounds (72.6 Kg.). The temperature record for his stay in the hospital is shown in chart 1.

A macroscopic Widal test, August 18, showed a practically complete reaction in the 1:40 dilution for *Eberthella typhi*. This reaction tended to confirm the correctness of the clinical diagnosis of typhoid. The patient voided bloody, watery stools, had nosebleeds and suffered insomnia. He was given symptomatic treatment. August 27, serologic tests were made again, which showed complete agglutination in the 1:40 dilution of the typhoid antigen and a weakly positive reaction with the paratyphoid B organism.

At this time a bacterial culture, secured by hemoculture, was referred to us for identification by another laboratory from a case which terminated fatally and in which there was a history of a fever of long duration, with remissions and recrudescences, and a progressing debility and emaciation. This was highly suggestive to us of undulant fever and served to direct our attention more closely to the case under observation.

Consequently, a hemoculture was made, August 29, as well as an agglutination test with the use of *Brucella abortus* organisms as antigen. The latter gave a positive reaction up to and including the 1:160 dilution. The blood culture yielded an organism which subsequent cultural, biochemical and serologic tests identified as of the *Brucella* genus. As the referred culture also fell in this classification, both were studied for species identification by Huddleson's [13] methods of dye bacteriostasis and hydrogen sulphide production. Known strains of the *melitensis*, *abortus* and *suis* species were carried along simultaneously in these tests, and both unknown strains fell into the *suis* classification.

Questioning of the patient revealed no contact with animals over a three months' period prior to his illness. Before that he had been employed on a dairy farm. He did admit to a habit of drinking large quantities of raw milk in the interim. Our efforts to investigate the milk supply for *Brucella* infected animals have not been successful thus far, because of the difficulty of establishing contact.

The patient left the hospital, September 9, which was the fifth day of normal temperature. His weight at this time was 133 pounds (60.3 Kg.).

The patient was not under our immediate observation for the ensuing five weeks. October 16, he came under the care of Dr. F. M. Leitch, county health officer. Inquiry elicited the information that two recrudescences of the infection had occurred since his leaving the hospital but, because of indigence, medical aid had not been sought. An exacerbation of the disease was in evidence, and the patient was emaciated and mentally depressed.

It was then decided to attempt to shorten the duration of the disease by the use of an autogenous antigen. October 20, cultures of the stools were made by the method described by Amoss.[14] Duplicate trials were made with the use of both the patient's blood serum and the polyvalent abortus antiserum and by plating out on eosin-methylene blue agar. Typical organisms of the *suis* type were recovered by both methods.

PREPARATION OF THE ANTIGEN

The autogenous strain was grown on 2 per cent beef liver infusion agar [15] (p_H 6.8)-flats for seventy-two hours at 37.5 C. The growth was removed by gently scraping the surface with a large loop and was transferred to a minimum quantity of sterile 0.85 per cent physiologic solution of sodium chloride. A very heavy creamy emulsion was thus obtained, which was further homogenized by adding sterile glass beads and agitating for two hours in a mechanical shaker. The suspension was then standardized to contain approximately 50 billions of organisms per cubic centimeter. Five cubic centimeters of the suspension was placed in a pyrex tube and frozen by compressed carbon dioxide and ether and then rapidly thawed by plunging the tube into a water bath at 80 C. The suspension was alternately frozen and thawed five times. Smears of the suspension were then made and stained. On microscopic examination only disintegrated forms and bacterial débris were observed. Sterility tests were made by inoculating loopfuls of the material on liver infusion agar slants and into ascitic fluid-dextrose bouillon. These mediums remained sterile. Tricresol was then added in sufficient quantity to give a concentration of 0.3 per cent. This material constituted the antigen which was tested for its therapeutic efficiency.

TREATMENT

In order to determine the sensitiveness of the patient to this antigen, an intradermal injection of 0.1 cc. was made on the volar surface of the forearm, on the morning of October 23. (Prior to this injection a sample of blood was drawn to determine the agglutination titer. The 1:200 dilution of serum and the homologous *Brucella* antigen were completely agglutinated.) When examined four hours later, an erythematous wheal, 2.5

9. Courtois-Suffit, Garnier and Liège: A Case of Malta Fever Cured Following a Single Injection of an Endoprotein Prepared with the Bacillus Abortus of Bang, Bull. et mém. Soc. méd. d. hôp. de Paris **50**: 1329 (July 23) 1926.

10. Cambessédès and Cochez: A Case of Undulant Fever Cured by Vaccinotherapy, Rev. de méd. et d'hyg. trop. **20**: 103 (July-Aug.) 1928.

11. Liège, R., and Casteran, R.: A New Case of Melitococcosis Cured After a Single Injection of an Endoprotein Prepared with the Bacillus Abortus of Bang, Gaz. d. hôp. **102**: 41 (Jan. 9) 1929.

12. Cambessedes, H., and Garnier, G.: Vaccinotherapy of Undulant Fever: Technique, Indications and Results, Paris méd. **1**: 281 (March 23) 1929.

13. Huddleson, I. F.: The Differentiation of the Species of the Genus Brucella, Tech. Bull. 100, Michigan State College, Agric. Exper. Sta., August, 1929.

14. Amoss, H. L., and Poston, M. A.: Isolation of the Brucella Organism from the Stools, J. A. M. A. **93**: 170 (July 20) 1929.

15. Huddleson, I. F.; Hasley, D. E., and Torrey, J. P.: Further Studies on the Isolation and Cultivation of Bacterium Abortus (Bang), J. Infect. Dis. **40**: 352 (Feb.) 1927.

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by 3.0 cm., presented itself about the site of the injection. That evening, eight hours after the injection, the wheal measured 4.5 by 6.5 cm., and the temperature was 103.6 F. The following morning the wheal presented a small urticarious center, while the erythematous area was roughly rectangular and measured 7.5 by 13 cm.

In view of this marked sensitiveness to the antigen, it was decided to test its efficacy immediately. The patient was given 20 drops of a 1:1,000 solution of epinephrine hydrochloride. Then 1 cc. of the antigen was injected deep into the glutei. The temperature was 99 and the pulse, 77 at this time. An intense generalized reaction set in, for three hours later, at noon, he had intense rigors and the temperature was 102.5 and the pulse 110. At 3 o'clock the rigors had begun to subside, the temperature was 104.3, the pulse 84, and there was a wheal 5 cm. in diameter about the site of the gluteal injection. At 6 p. m. the patient was in considerable distress; the temperature was 104.6 and the pulse 94. He spent a very restless night. When seen in the morning his temperature was 101.3, the pulse 85, and there was an area of erythema, 10 by 13 cm. about the site of the injection which was extremely tender. Chart 2 graphically illustrates the temperature and pulse curves.

We were gratified to observe a remission of the fever on the second day and its complete subsidence forty-eight hours after the injection. The gluteal soreness also began to subside at this time. Diurnal temperatures were taken as a routine in order to detect any mild exacerbation that might otherwise have been overlooked. At no time was there a departure from the

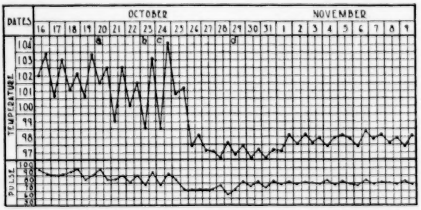

Chart 2.—Record of the terminal period: *a*, positive feces culture; *b*, intradermal test; *c*, injection of antigen; *d*, negative feces culture.

normal range up to now, six months later, though only the record of the period immediately following the treatment is shown in chart 2. The patient rapidly regained his strength and weight.

In order to determine whether the organisms were still being eliminated in the stools, cultures were made, October 29, by the Amoss method. These were negative, though positive controls (artificially inoculated feces) carried along simultaneously yielded the organism. At this time, five days after the injection, there was no pain over the site of the injection, though a small area of light pink persisted at the site of the intradermal test.

We were interested in the question of whether or not the antigen had the ability to stimulate agglutinin production. Consequently, samples of blood were obtained repeatedly, and the serum titrated in duplicate against an antigen of the homologous strain and against an antigen of another strain of *Brucella suis*, Michigan 443.[16] The titers against both antigens, which are here summarized, were comparable on the several dates: October 30, complete agglutination in the 1:500 dilution; November 6, complete agglutination in the 1:500; November 28, complete agglutination in the 1:100; and February 21, 1931, complete agglutination in the 1:50 dilution. It is to be noted that there was no considerable enhancement of the agglutinin titer due to the stimulus of the vaccine, as the titer immediately preceding its use was a complete reaction in the 1:200 dilution.

16. Obtained through the courtesy of Dr. I. F. Huddleson, Michigan State College, East Lansing.

COMMENT

This case furnishes an additional instance of the Hektoen phenomenon, to which attention has been directed recently by the researches of Gilbert and Coleman,[17] for the syndrome simulating typhoid and the agglutination titer of diagnostic significance tended to establish firmly the early diagnosis of typhoid. Yet this patient had never had typhoid, nor had he received typhoid vaccine. The stimulus of the *Brucella* infection evoked not only specific agglutinins but also agglutinins for the typhoid organism. The occurrence of a double infection may be excluded, because the fecal examinations were negative for micro-organisms of the enteric group. In view of the accumulating evidence of the frequency of this phenomenon, it would appear desirable to establish a routine of testing all blood serums submitted for the Widal test with a *Brucella* antigen as well, regardless of any positive reactions obtained in the former.

The strikingly prompt response to the administration of the antigen warrants an inquiry into the probable mode of its action in the infected organism. It does not appear likely that the antigen conferred an immunity through the production of antibodies, if the enhancement of the "test tube" antibodies is taken as the measure of its antibodygenic power. The sudden character of the cure scarcely permits this explanation. Further, while there did occur an increase in the agglutination titer from an original of 1:200 to a maximum titer of 1:500, which evidences a stimulation of the production of agglutinins, yet that increase is too slight to be credited with the establishment of the cure. A moderate agglutinin enhancement was to be expected both because of the nature of the antigen and because of the size of the dose; for the introduction of such a quantity of bacterial substance, derived from 50 billion micro-organisms if administered in smaller quantities in repeated dosages, would result in a considerable agglutinin titer, though it is an open question whether that property would be specifically protective.

It seems clear that the size of the dose, i. e., quantity of bacterial substance, injected bears an important relationship to the final result in the vaccine treatment of this disease. Injections beginning with an initial dose of 10 million and gradually progressing to a maximum of 100 million micro-organisms have been generally used and recommended. A study of the literature in these cases indicates that the results have not been particularly favorable. However, when the vaccinotherapy was begun with a massive quantity of bacterial substance, as in Angle's investigations, the results were superior. He used a bacterin of heterologous strains with a bacterial count of 6 billion per cubic centimeter. Similarly, the French investigators, headed by Cambessédès and Garnier, have employed greatly concentrated doses either as suspensions of ground bacteria or as extracts of them.

The relative solubility of such concentrated antigens in conjunction with a route of introduction permitting its rapid absorption has very probably an influence on the therapeutic effect. The described freezing and thawing method resulted in disrupted bacterial bodies without altering the character of the proteins and gave a readily absorbable product. Further, by the choice of the intramuscular route a rapid dispersion of the bacterial proteins through the system was afforded.

17. Gilbert, Ruth, and Coleman, M. B.: Agglutination of Typhoid Bacilli in Serums of Patients Having Unrelated Infections, J. Infect. Dis. **46**: 311 (April) 1930.

The intense local reaction to the intradermal test was convincing of its specificity and of the sensitiveness of the patient toward it. Cambessédès and Garnier have made use of this reaction to gage the size of the initial dose and to predict whether their antigens possessed the requisite specificity to effect an optimal response. They are convinced that, unless a strong local reaction is obtained, the vaccine will not prove effective.

We conceive that the mode of action in this treatment arose from the intolerance of the subject to this specific antigen. Because it was readily absorbable and because it was given intramuscularly, which aided its rapid dispersion, there resulted an intense inflammatory reaction which provoked a general response on the part of the defensive mechanism. The accelerated activity of the defensive forces probably accounts for the overwhelming of the infection.

SUMMARY

A case of undulant fever is reported in which the Hektoen phenomenon of a positive typhoid agglutination appeared and served to obscure temporarily the proper diagnosis. The etiologic agent was isolated both by blood culture and by culture of the feces, and was identified as *Brucella suis* (Traum).

A method of preparing a highly concentrated, relatively soluble, autogenous antigen is described. This antigen on intramuscular injection caused a complete and permanent subsidence of the infection in forty-eight hours.

Clinical Notes, Suggestions, and New Instruments

INTESTINAL PARASITES: A SUGGESTION IN THE METHOD OF TREATMENT*

ALEXANDER H. KEMP, M.D., QUESSUA, MALANGE, ANGOLA, AFRICA

Practically all textbooks and treatises dealing with the subject of ridding the intestinal tract of parasites stress the importance of fasting and purging the patient before administering the vermifuge. No reasons are given, usually, as the custom is universally observed, and the necessity taken for granted. The justification for the fasting and purging probably lies in the following ideas:

1. If the bowel contains food when the vermifuge is given, the mixture would render the drug inert, or even result in the production of a substance deleterious to the patient.

2. If the vermifuge were mixed with food it would be so diluted as to be rendered too weak to accomplish its purpose.

3. The food in the intestine might prevent entirely the contact of the drug with the head of the worm.

After seven years' experience among a people 90 per cent of whom have intestinal parasites, I question the validity of these arguments and the justification or wisdom of compelling a patient to fast and take purges preceding the taking of a vermifuge. At our hospital we treat about a thousand patients annually for intestinal parasites, each patient's feces being examined to determine the presence of the parasites. Since our natives cannot conceive of an ache or a pain, a chill or a fever without a worm as a cause, they come with a fecal specimen regardless of the symptoms experienced, thus giving us a good opportunity to study the effects of various treatments. A recent survey of our school boys showed 90 per cent with hookworms, 8 per cent also having ascarids. The school boys probably show a lower percentage than the average native village, where I have frequently found ova of parasites in the feces of every patient examined. We not infrequently encounter whipworms and tapeworms in hospital patients.

* From the Methodist Episcopal Mission Hospital.

At the beginning of our work here seven years ago, we were careful to follow textbook instructions in administering vermifuges. But we were dealing with a primitive people, and our instructions were often unfulfilled, which caused us to spend some apprehensive hours. As time went on, however, and we saw no ill effects when a patient did not observe instructions as to fasting the day before taking a vermifuge, we got less strict in our instructions and customs. Finally came the idea that patients who had not fasted got better results than those who did fast, and fecal examinations made from two to five days after a vermifuge had been taken confirmed me in my conviction.

Several recent experiences I deem worthy of recording. A patient on his arrival at the hospital complained of passing "white worms," which he recognized as segments similar to those of a tapeworm I keep in a bottle for demonstration purposes. With no preparation whatever, I gave him 50 minims of carbon tetrachloride in a tablespoon with a little water, and two compound cathartic pills to take an hour later. In less than two hours the patient again presented himself, proudly exhibiting a tapeworm measuring 2.5 meters (8 feet) that he had just passed, the worm intact and the head attached. A village boy passed two small tapeworms after he had received carbon tetrachloride. A school girl passed 160 ascarids after taking 2 grains (0.15 Gm.) of santonin. A woman passed 800 ascarids after 3 grains (0.2 Gm.) of the same remedy, followed by epsom salt. A school boy passed 504 hookworms after a dose of carbon tetrachloride, though his feces were still laden with hookworm ova three days later. All these patients were given their treatment with no preliminary instructions as to fasting and no purges except two compound cathartic pills, U. S. P., an hour following the vermifuge.

Administering a vermifuge without the customary preliminary fasting and purging may seem a lazy man's method and unscientific. It certainly saves a busy medical missionary a lot of valuable time, and I am not convinced that the method is not backed up by scientific reasons, which I give here:

1. A mixture of a vermifuge with food material in the intestine does not necessarily result either in rendering the drug inert or in the formation of a substance deleterious to the well being of the patient.

2. With the bowel distended even slightly (i. e., not in a state of collapse) the drug has a greater opportunity of coming in actual contact with the head of the parasite than when the bowel is empty and collapsed, with the head possibly buried in some sulcus.

3. Mixed with food, the drug would probably be in contact with the parasite for a longer period than if no food were present. Some vermifuges are in themselves so irritating to the lining of the intestine that they cause an increased peristaltic action, rapidly forcing the drug past the worm.

4. With the bowel containing food, liquid though the food is as it passes through the upper part of the small intestine, the element of friction probably enters in, aiding the peristaltic action to dislodge the head of the worm.

5. Even though failure attends the first attempt with this method, the patient has not been weakened by fasting and excessive purging, and is usually more than willing to try a second time.

Regardless of the reasons involved, we have treated 3,000 patients with intestinal parasites in the past three years by the foregoing method and have not noted a single bad effect. Most of our patients present themselves about 8 o'clock in the morning at the hospital for examination and treatment. If intestinal parasites are suspected, I call for a fecal specimen, mix a little of it on a slide with a solution composed of equal parts of glycerin and saturated salt solution, and with the low power of the microscope examine the upper surface of the mixture. If ova are found I immediately administer the vermifuge, giving the patient two compound cathartic pills to take an hour later.

A missionary in North Africa claims to have given vermifuges that resulted in the expulsion of 2,000 tapeworms in a single year. Her routine is not only to not require fasting and purging as a preliminary to taking the vermifuge, but to require the patient to eat a dish of corn-meal mush just before receiving the treatment. And she is enthusiastic over her results.

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SUMMARY

1. Administering vermifuges without preliminary fasting and purging has given highly satisfactory results so far as effecting the elimination of parasites from the intestinal tract is concerned.

2. Tapeworms, hookworms and ascarides respond equally well to this method of treatment, especially when carbon tetrachloride is used.

3. No untoward effects have been noted in 3,000 cases.

MEDULLARY CARCINOMA OF MECKEL'S DIVERTICULUM

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Meckel's diverticulum is due to the persistence of the proximal portion of the vitelline duct, which connects the yolk sac with the small intestine in the embryo. The frequency of its occurrence as given by Ewing is 2.7 per cent. Balfour reports 15 cases out of 10,600 laparotomies. Telling found 39 cases in 13,068 necropsies.

Most of the literature reporting on the pathology of Meckel's diverticulum has to do with diverticulitis and intestinal obstruction. Of all malignant tumors of the intestinal tract, not more than 2 or 3 per cent occur in the small bowel. Only five cases of sarcoma of Meckel's diverticulum have been reported. Hassner, in 1913, reporting his case of spindle cell sarcoma of the diverticulum, stated that there were then no cases of primary carcinoma of Meckel's diverticulum in the literature.

M. M. Copeland, in a personal communication, states that in the surgical pathologic laboratory of the Johns Hopkins Hospital there are now some 50,000 cases with specimens and among this group there are only 11 cases of Meckel's diverticulum and its associated diseases. There is only 1 tumor among the 11 cases and this is an adenocarcinoma, which involved also the umbilicus and had grown to such an extent that exact relations of ileum, diverticulum and umbilicus were rather indistinct.

I have gone over considerable literature and have failed to find any cases of carcinoma of Meckel's diverticulum. I am reporting one such case:

A man, aged 41, a machinist, with a negative family history as to carcinoma and a previous history of good health except for an attack of influenza in 1926, came for examination, July 26, 1929, complaining of loss of appetite, slight loss of weight, and of feeling weak.

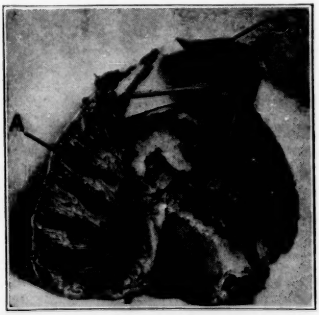

Fig. 1.—Longitudinal section of small intestine and diverticulum: *A*, small intestine; *B*, wall of diverticulum.

Examination at this time showed a secondary anemia: red blood cells 3,500,000 and hemoglobin 70 per cent and a right inguinal hernia; otherwise it was negative. On medication of iron, arsenic and diet, he improved slightly for a time, became stationary, and then began to lose weight again.

November 7, he had an attack of severe pain in the abdomen accompanied by nausea and vomiting. A physician was not consulted at this time, but the patient later described the pain as colicky, extending over the entire abdomen and nonradiating. The pain continued for several hours and the abdomen remained tender for two or three days.

December 1, the patient had another attack of severe pain in the abdomen, colicky in nature, rather general over the entire abdomen, and accompanied by nausea and vomiting. The pulse at this time was 84 and the temperature 98.4 F. Enemas gave no relief. A blood count showed 8,400 white cells; examination of the urine was negative. There was moderate rigidity over the abdomen, but no area of marked tenderness and no distention.

The patient was given an injection of morphine, ⅓ grain (0.02 Gm.) and atropine, 1/150 grain (0.4 mg.), and in a short time was feeling fairly comfortable; but he had some tenderness and rigidity for a few days. He thought that the hernia or the appendix was the seat of the trouble and decided to have the hernia repaired and the appendix removed through the hernia inicision, if possible.

Fig. 2.—Section from medullary carcinoma of Meckel's diverticulum showing masses of epithelial cells growing in the tissue. Many mitotic cells can be seen. Reduced from a photomicrograph with a magnification of 275 diameters.

Operation was done, Dec. 7, 1929, and while the region of the appendix was being explored a mass was felt to the left of the cecum. The hernia was then repaired and a right rectus incision was made. About 30 inches (76 cm.) from the ileocecal junction there was a pouchlike area of the small intestine about 2 inches (5 cm.) in length and 1 inch (2.5 cm.) in depth, situated opposite the attachment of the mesentery. From the tip of the pouch there was a fibrous band extending to the anterior abdominal wall and attaching to it about half way between the umbilicus and the pubic bone.

Most of the wall of the pouch was thickened and nodular, and the thickening extended down to and included a part of the wall of the small intestine. There was no inflammatory reaction, ulceration, reduction in the size of the lumen of the bowel, dilatation of the bowel above the tumor, or adhesions. A few of the mesentery glands near the bowel were enlarged.

A specimen was taken for examination and the incision was closed. H. F. Webb, the pathologist, reported that epithelial cells were growing in masses throughout the tissue; many mitotic cells could be made out. The diagnosis was medullary carcinoma.

December 10, about 12 inches (30 cm.) of small intestine, including the tumor, was resected and a lateral anastomosis

made. The patient's condition remained good for forty-eight hours; then the pulse began to be rapid, the temperature went to 102 F., and the patient died three days after the operation.

At autopsy, no further pathologic conditions were found. There was no leakage from the anastomosis and no peritonitis. As the diverticulum was so much more involved than the intestinal wall, we believed the carcinoma to be primary in the diverticulum.

Citizens Building.

Special Article

THE INDISPENSABLE USES OF NARCOTICS

NARCOTICS IN "PATENT MEDICINES"*

ARTHUR J. CRAMP, M.D.
CHICAGO

The term "patent medicines" used in the title refers not to medicinal products that have actually been granted Letters Patent but to those preparations that are colloquially spoken of as "patent medicines." These are, essentially, package medicines put up for self-medication purposes and sold under proprietary names. The name is usually protected by trade-mark and thus becomes the perpetual property of those who own it.

Many changes have taken place in the "patent medicine" industry since 1900, and not a few of these changes have been due to legislation. The national Food and Drugs Act, passed in June, 1906, and put into effect in January, 1907, did much to eliminate the outrageously false and fraudulent claims that used to be made for "patent medicines" on and in the trade package. That law, in effect, forbids the sellers of "patent medicines," who do an interstate business, from making false or misleading claims (on or in the trade package) regarding the composition or origin of their products, and from making false and fraudulent claims for therapeutic effect (also on or in the trade package). The act, unfortunately, does not apply to the claims made for these products that may appear in newspaper advertisements, billboards or circulars. In addition, the same law makes it necessary for the sellers of "patent medicines," doing an interstate business, to declare the presence and amount of eleven specified drugs and their derivatives—several of them in the narcotic group: alcohol, morphine, opium, cocaine, heroin, alpha-eucaine, beta-eucaine, chloroform, cannabis indica, chloral hydrate, and acetanilid.

Some years after the passage of the Food and Drugs Act, there was passed the Harrison Narcotic Act, which, in its turn, furnished some further protection to the purchasers of "patent medicines." Unfortunately, as a result of the pressure brought to bear by the "patent medicine" interests, the law was weakened by the inclusion of section 6, which permits "patent medicine" makers to include certain narcotic drugs in their preparations, provided the amount does not exceed that specified by the section. Thus, under the law, it is permissible for "patent medicine" makers to put into each fluidounce of their preparations opium up to 2 grains, morphine up to ¼ grain, heroin up to ⅛ grain, codeine up to 1 grain.

For some time after the passage of the Harrison Narcotic Act, the somewhat anomalous condition existed that made possible the sale of "patent medicines" containing narcotic drugs (up to the amounts specified under section 6) in any quantity and without any record being made of such purchases. Yet, during the same period, a prescription written by a physician and containing an amount of narcotic drug, also under the minimum amount permitted by section 6, had to be kept on record for two years by the druggist that filled it.

Prior to the passage of the Food and Drugs Act, the market was flooded with "patent medicines" that had in them the most dangerous of habit-forming drugs—soothing syrups containing morphine or other opium derivatives, cough syrups containing morphine or heroin, catarrh snuffs containing cocaine, and products sold on the mail-order plan for the alleged cure of morphine addiction that were themselves loaded with morphine.

TABLE 1.—*Preparations That Contained Narcotic Drugs Other Than Alcohol*

CANNABIS INDICA	
One Day Cough Cure (also morphine)	Piso's Cure
CHLORAL	
Captol	D. D. D. Remedy
COCAINE	
Agnew's Powder	Coco-Bola
Anglo-American Catarrh Powder	Tucker's Asthma Cure
OPIUM AND ITS DERIVATIVES	
Boschee's German Syrup (morphine)	Hooper's Anodyne, The Infant's Friend (morphine)
Brou's Injection (morphine)	Maguire's Compound Extract Benne (morphine)
Carney Common Sense Cure (morphine)	Mexican Oil (opium)
Children's Comfort (morphine)	Mrs. Winslow's Soothing Syrup (morphine)
Colwell's Egyptian Oil (opium)	One Day Cough Cure (morphine, also cannabis indica)
Crossman's Specific Mixture (opium)	Petit's Eye Salve (morphine)
Drake's German Croup Remedy (opium)	Pierce's Smart Weed (opium)
Fahrney's Teething Syrup (morphine)	Rexal Cholera Cure (opium)
James' Soothing Syrup (heroin)	Shiloh's Cure (heroin)
Seth Arnold's Cough Killer (morphine)	Taylor's Sweet Gum and Mullein Compound (morphine)
Moffett's Teethina; Teething Powders (opium)	Tousley's Sneezeless Snuff (morphine)
Godfrey's Cordial (opium)	Tubercine (opium)
Gowan's Pneumonia Cure (opium)	Victor Lung Syrup (opium)
Habitina (morphine)	Watkin's Anodyne (heroin)
Harrison's Opium Elixir (opium)	Wright's Instant Relief (opium)
	Jayne's Expectorant (opium)

In the Report of the Committee on Social Betterment, published by the President's Homes Commission in 1908, there was a brief discussion of the problem of "patent medicines" which contained habit-forming drugs. A list of such preparations, containing narcotic drugs other than alcohol, appeared in the report, together with the name of the narcotic drug that each contained (table 1).

In the hearings before the Committee on Interstate and Foreign Commerce, at the time that the proposed Sherley Amendment to the Food and Drugs Act was

* These articles are prepared under a plan of cooperation between the American Medical Association, the Committee on Drug Addiction of the Division of Medical Sciences of the National Research Council, and the Division of Mental Hygiene of the United States Public Health Service. Their object is to reduce the legitimate use of addiction drugs to a minimum by replacement, wherever possible, with other remedies that will accomplish the desired result. The physicians of the United States are the essential group in any such attempt and it is hoped that these articles will be useful to them in their practice. The funds for this work have been donated to the National Research Council by the Bureau of Social Hygiene, Inc. The present article concludes the series.

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under consideration, there was introduced by the Bureau of Chemistry of the Department of Agriculture, as exhibits in the case, a list of twenty-two alleged soothing syrups, all of which were said to contain one or more habit-forming agents. Some of these twenty-two are already listed above, as taken from the Homes Commission list. The others in the list submitted by the Bureau of Chemistry are given in table 2.

TABLE 2.—*Soothing Syrups That Contained Habit-Forming Agents*

Babene	Kopp's Baby's Friend
J. Emery-Coderre's Infant Syrup	Miller's Anodyne for Babies
Fahey's Pepsin Anodyne Compound for Babies	Monnell's Teething Cordial
Fenner's Soothing Sirup	Moreau's Wine of Anise; Children's Soothing Wine
Fitler's Soothing Carminative	Teethina
Gauvin's Aniseed Sirup	Windsor Soothing Sirup
Grove's Anodyne for Infants	Wood's Soothing Sirup
Harter's Soothing Drops	Victor Infant's Relief
Jadway's Elixir for Infants	

Among the other exhibits submitted at the same time by the federal authorities to the investigating committee were certain asthma and catarrh "cures" alleged to contain cocaine. In addition to Tucker's Asthma Specific, the cocaine-containing products given in table 3 appeared in the Homes Commission list.

TABLE 3.—*Products That Contained Cocaine*

Birney's Catarrh Powder	Einhorn's Asthma Spray
Cole's Catarrh Cure	Lepper's Microtine
Crown Catarrh Powder	

The part that "patent medicines" played in making narcotic addicts, before the passage of the Harrison Narcotic Act and the Food and Drugs Act, is well summarized by Terry and Pellens in their book "The Opium Problem," published for the Committee on Drug Addictions in collaboration with the Bureau of Social Hygiene, published in 1928. They said:

"Another influence which operated undoubtedly to extend the use of opium and its derivatives, especially during the latter half of the nineteenth century, was the 'patent medicine' industry. It would be impossible to form any accurate estimate of the influence exerted by the widespread sale and use of nostrums containing opium, but that this influence was great and contributed in an appreciable degree to the habitual use of the drug is undoubted. It must be remembered that those who employed these secret remedies were, for the most part, ignorant of drug dangers, sick, frequently in pain, and often suffering from some chronic malady and hence in a mental state which rendered them easy victims to the specious advertisements of the manufacturers.

"How widespread the custom of self-medication with 'patent' nostrums became in this country is a matter of common knowledge. Newspapers and magazines were filled with fraudulent and misleading, but seductive advertisements, while from billboards 'pain-killers,' 'cough mixtures,' 'soothing syrups,' 'women's friends,' 'consumption cures,' and a host of others, furnished a constant suggestion that could not fail to have its effect upon a considerable portion of the population. The peak of the 'patent medicine' industry was reached just prior to the passage of the federal Pure Food and Drugs Act in 1906.

"Practically all remedies advertised for painful conditions, such as consumption, coughs and colds, pelvic troubles of women, cancer, rheumatism and neuralgia, as well as soothing syrups for babies, and diarrhea and cholera mixtures, contained opium or some of its products and depended principally on these drugs for such virtues as they possessed. It is not surprising that many persons became dependent on these preparations and later turned to the active drug itself when, accidentally or otherwise, they learned of its presence in the 'medicine' they had been taking. Obvious and logical as was the influence of the 'patent medicine' industry, it cannot be measured with any degree of accuracy and, therefore, must be accepted along with certain other influences, such as the counter sales of the drugs themselves—equally immeasurable as a causative factor—as an extremely vicious and probably a very active influence. Many physicians who have treated numbers of cases of chronic opium intoxication in private practice mention instances of cases that owed their origin to the use of opium-containing nostrums."

Most of the cocaine-containing "patent medicines" have disappeared from the American market. One notable exception has persisted—that of the Tucker's Asthma Specific. This preparation is still, apparently, widely sold on the mail-order plan. THE JOURNAL, at various times in the past, has called attention to the fact that its sale quite obviously violated the federal laws. The preparation has been labeled as containing 5 grains of cocaine to the fluidounce. When the Commissioner of Internal Revenue was asked, a few years ago, how this preparation could legally be sent through the United States mails to any one that ordered it, the reply came that while it was true that the "patent medicine" was labeled as containing 5 grains of cocaine to the fluidounce, the facts were that most of the cocaine was hydrolized before it reached the public, and there was either no cocaine in it or but a very small quantity. If this were true, then, of course, the label was false and the product was misbranded under the federal Food and Drugs Act. Furthermore, its sale would still violate the Harrison Narcotic Act, for that law applies to the derivatives of cocaine—which were admittedly present—as well as to cocaine itself. As THE JOURNAL, Nov. 1, 1924, stated editorially in discussing this preparation: "The tender consideration shown by the federal authorities for this Ohio nostrum is a cause for wonder."

The history of Mrs. Winslow's Soothing Syrup is also of interest, as showing what public opinion can accomplish, irrespective of legal restrictions. For many years this "patent medicine" contained, as its active ingredient, morphine, together with a small amount of alcohol and some laxative and carminative drugs. In the British Isles, "patent medicines" containing morphine have for years been required under the British Pharmacy Act to be labeled "Poison"; the Winslow product, when it contained morphine, had to be so labeled. This, apparently, interfered seriously with the sale of the product across the Atlantic, for the Anglo-American Drug Company, which sold Winslow's Soothing Syrup, took out the morphine and substituted potassium bromide—a drug which did not come in the "Poison" schedule. The American product continued to contain morphine. During its morphine-containing period, there were published in THE JOURNAL reports of infants who had been put to sleep eternally by Winslow's Soothing Syrup. The campaign of education carried on by the American Medical Association and supported by such lay magazines as *Collier's* and the *Ladies' Home Journal* finally awakened the American public to the dangers of products of this sort, and there came a time when many drug stores refused to handle the Winslow preparation. Then, the manufacturers of

Mrs. Winslow's Soothing Syrup took out the morphine from their preparation, specifically calling attention to the fact that it no longer contained opium or its derivatives. Later, they took out the small amount of alcohol that was in it, and the product today is a mixture of simple carminatives and laxatives, while the word "Soothing" has been dropped from the name.

The present status of "patent medicines," so far as the narcotic problem is concerned, is by no means clear. One gets the impression, from a survey of the retail druggists' shelves and from inquiries directed to jobbers who supply retail druggists, that the number of "patent medicines" today containing narcotic drugs is very much less than it was a few years ago. Yet there seems to be accumulating evidence that the sale of narcotics, in the form of the so-called exempt preparations of the "patent medicine" class, is increasing. The census of manufacturers, issued in 1929 by the Bureau of the Census and dealing with the drug industries, contains some interesting figures. There was shown, tabulated, the selling value (*at the factory*) of all "patent medicines" for the biennial periods 1921, 1923, 1925 and 1927. These figures were further divided into the sale value of "patent medicines" that contain narcotic drugs (opium, morphine, codeine, heroin or cocaine) and those "patent medicines" that contain no narcotic drugs. The figures are given in table 4.

TABLE 4.—*Wholesale Selling Value of "Patent Medicines" for Biennial Periods 1921 to 1927, Inclusive*

	"Patent medicines" containing narcotics	All "patent medicines"
1921	$403,552	$108,355,599
1923	$862,403	$126,843,315
1925	$278,202	$134,188,005
1927	$646,139	$140,679,074

It will be noted from these figures that for 1921 the sale value of "patent medicines" containing narcotics was $403,552, while the total sale value of all "patent medicines," including not only the group just mentioned but those containing no narcotics, was $108,355,599. In 1923, the sale value of "patent medicines" containing narcotics had more than doubled and was $862,403, while the total sale value of all "patent medicines" was $126,843,315. In 1925, the total sale value of "patent medicines" containing narcotics had dropped to $278,202, while the total sale value of all "patent medicines" had increased to $134,188,005. In 1927, the total sale value of "patent medicines" containing narcotics had jumped to $646,139, while the total sale value of all "patent medicines," including this group, was $140,679,074.

These seem to be the latest figures available, and while it is encouraging to note that, in 1927, the total sale value of "patent medicines" containing narcotics was considerably under the sale value of the same preparations for 1923, yet, it is also worthy of note that while between 1925 and 1927 there was an increase of only 3.3 per cent in the total sale value of *all* "patent medicines," there was an increase of over 130 per cent in the total sale value of "patent medicines" *containing narcotics*.

That the sale of narcotics, in the form of "patent medicines" in the so-called exempt preparations, is a problem that is receiving serious consideration not only by the federal authorities but by all those who are interested in the narcotic problem, is indicated by the statements that were made in the Conference on Medicinal and Scientific Requirements of Narcotic Drugs, held in Washington, D. C., Aug. 12, 1930. There were represented at this conference a number of national organizations, among which, of course, were the American Medical Association, the Committee on Drug Addiction of the National Research Council, the Bureau of Social Hygiene, Inc., dental and pharmaceutic groups, and various governmental agencies. In the summary of the proceedings of this conference, issued in October, 1930, there are various references to the exempt preparations, which include and largely comprise the "patent medicines" containing narcotics, under the amount permitted by section 6 of the Harrison Narcotic Act. The following quotations by various men from different parts of the summary are self-explanatory:

"During the course of discussion, attention was called to the use of a considerable quantity of opium or its derivatives in exempt preparations and that the quantities of opium so used had increased within recent years."

"An analysis of the manufacturers' reports has indicated an increasing amount of opium or its derivatives finding its way into exempt preparations, and a greater proportionate increase in the use of codeine or codeine salts."

"Attention was called to the necessity for more detailed studies of the enforcement of one phase of the federal narcotic laws dealing with the subject of exempt preparations with a view to developing greater supervision over the sale and distribution of such preparations."

There are two factors involved in the sale of the so-called exempt preparations. The first is the amount of narcotics that, from a legal point of view, legitimately reach the public directly through the sale of such preparations; second, the possibility that quantities of narcotics purchased legally by "patent medicine" concerns for the alleged manufacture of their exempt preparations do not find their way into these exempt preparations but might be diverted into illegal channels. Obviously, if a "patent medicine" concern claims to need, we will say, twenty pounds of morphine sulphate annually for the preparation of the "soothing syrup" that it puts on the market, the government should be in a position so to check up the finished product that it can, within reasonable limits, be assured that the entire twenty pounds has gone into the "soothing syrup" and has not been diverted to illegal uses. In this connection, the following statement from the summary of the conference already referred to is significant:

" . . . it was pointed out that the records of retail sales of exempt preparations were not satisfactory for analysis and it was necessary to return to the wholesale or manufacturers' sales figures for reliable data concerning these preparations."

It seems probable that governmental agencies are doing all that can humanly be done under present appropriations and limited personnel to obtain data that will enable a check to be kept on the manufacture and sale of "patent medicines" containing narcotics. It also seems probable, however, that Congress should make it possible for those agencies so to increase their activities that detailed records could be kept of every ounce of narcotic drugs that are purchased for the manufacture of "patent medicines" from the time they go into the hands of the nostrum maker until they reach the ultimate consumer.

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Council on Pharmacy and Chemistry

NEW AND NONOFFICIAL REMEDIES

THE FOLLOWING ADDITIONAL ARTICLES HAVE BEEN ACCEPTED AS CONFORMING TO THE RULES OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR ADMISSION TO NEW AND NONOFFICIAL REMEDIES. A COPY OF THE RULES ON WHICH THE COUNCIL BASES ITS ACTION WILL BE SENT ON APPLICATION.

W. A. PUCKNER, Secretary.

EPHEDRINE HYDROCHLORIDE-LILLY (See New and Nonofficial Remedies, 1930, p. 170).

The following dosage form has been accepted:

Syrup No. 112 Ephedrine Hydrochloride: Containing ephedrine hydrochloride-Lilly, 0.22 Gm., in 100 cc. (1 grain per fluidounce) and alcohol, 12 per cent; it is flavored with vanillin, benzaldehyde and tolu, and tinted with amaranth.

QUINIOBINE.—Quinine bismuth iodide rendered soluble in olive oil by means of lecithin. Each cubic centimeter contains 0.03 Gm. of bismuth, 0.03 Gm. of quinine, 0.075 Gm. of iodine, and 0.22 Gm. of lecithin.

Actions and Uses.—Quiniobine is proposed as a means of obtaining the systemic effects of bismuth in the treatment of syphilis (See New and Nonofficial Remedies, 1930, p. 94). It is claimed that, since in quiniobine the quinine bismuth iodide is soluble, the injections are usually only slightly painful and the dosage is more accurate than with suspensions of quinine bismuth iodide.

Dosage.—Single dose for adults: 1 to 2 cc. twice a week; the average course is from twelve to fourteen injections.

Manufactured by Chemisch-Pharmazeutische A. G., Bad Homburg, Frankfurt-a-M. Germany (Spicer & Company, Glendale, Calif., distributor). No U. S. patent or trademark.

Quiniobine Ampules, 2 cc.

Transfer exactly 2 cc. of quiniobine to a Kjeldahl flask, add 15 cc. of sulphuric acid, heat, add nitric acid a few drops at a time until the solution becomes almost clear. From time to time during the addition of the nitric acid, heat until brown fumes are not evolved. When the solution is clear, cool, add 10 cc. of water and heat until brown fumes are not evolved; cool, add 200 cc. of water, transfer to an Erlenmeyer flask, warm, add hydrogen sulphide until the bismuth is completely precipitated (if the bismuth does not come down readily, add ammonia water until it does), filter in a weighed Gooch crucible, wash with water, alcohol, chloroform and ether in this order, dry at 100 C., cool in a desiccator over sulphuric acid, weigh: the bismuth sulphide is equivalent to not less than 0.0585 Gm. nor more than 0.0615 Gm. of bismuth.

The quinine bismuth iodide in quiniobine conforms to the N. N. R. standards for that substance.

COMMITTEE ON FOODS

THE FOLLOWING PRODUCTS HAVE BEEN ACCEPTED AS CONFORMING TO THE RULES OF THE COMMITTEE ON FOODS OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION. THESE PRODUCTS ARE APPROVED FOR ADVERTISING IN THE PUBLICATIONS OF THE AMERICAN MEDICAL ASSOCIATION, AND FOR GENERAL PROMULGATION TO THE PUBLIC. THEY WILL BE INCLUDED IN THE BOOK OF ACCEPTED FOODS TO BE PUBLISHED BY THE AMERICAN MEDICAL ASSOCIATION.

RAYMOND HERTWIG, Secretary.

SMACO (206) POWDERED WHOLE MILK

Manufacturer.—S. M. A. Corporation, Cleveland.

Description.—A powdered spray-dried whole milk hermetically sealed in tins in an atmosphere of nitrogen.

Manufacture.—The milk used in SMACO (206) is collected in accordance with the provisions of the sanitary code, amendment No. 9 of the Cleveland Board of Health. On receipt at the factory the milk is pasteurized by the holding system, by which it is uniformly heated to a temperature of between 142 and 146 F. and uniformly maintained at this temperature for thirty minutes. The milk is cooled forthwith to 45 F. or less.

The pasteurized milk is homogenized to break up the fat particles to prevent fat separation during subsequent operations. The homogenized milk is passed through a centrifugal clarifier to separate any solid impurities that may have gained access to the milk. It is then spray dried. The air used is purified by passage through air filters, is heated to from 140 to 150 C. and forced through a cone in the center of the bottom of the spray chamber. The milk is delivered under high pressure to spray nozzles arranged around the top circumference. The milk powder collects on the bottom of the chamber from which it is removed to the filling machine.

The cans after passing from the filling machines are vacuumized, filled with nitrogen gas to prevent oxidation of fats and vitamins, and hermetically sealed.

Chemical Composition.—

(proximate analysis)	per cent
Moisture	2.0
Ash	6.0
Fat (ether extract)	27.0
Protein (N × 6.38)	26.0
Lactose	37.5

(proximate analysis of normal dilution — 2 packed level tablespoonfuls diluted to 3 fluidounces.)

Specific gravity 20 C/20 C	1.03
	per cent
Total solids	12.3
Ash	0.7
Fat (ether extract)	3.4
Protein (N × 6.38)	3.3
Lactose	4.7
*p*H	6.4

Calories.— 4.97 per gram
141.1 per ounce

Micro-Organisms.—The manufacturer guarantees absence of pathogenic organisms for the reasons that:

1. All dairy farms supplying the milk are located in an "accredited area" into which it is illegal to ship cattle not approved by the Office of the Ohio State Commissioner of Animal Industry after examination for infectious diseases by properly qualified members of the State Veterinarian's Office.

2. All dairy farms supplying the milk used are inspected and approved by the Cleveland Board of Health.

3. All milk used is from cows periodically tuberculin-tested by an approved veterinarian in compliance with the standard test for tuberculosis of the Ohio State Department of Agriculture in accordance with uniform regulations set up by the U. S. Bureau of Animal Industry.

4. All milk is pasteurized immediately on receipt.

5. All air used to dry the product is filtered to eliminate any possibility of contamination from this source. The entire process, including packaging, is automatic and involves no handling at any point.

Claims of Manufacturer.—Each 12 ounce can of SMACO (206) Powdered Whole Milk will make 2.8 quarts of liquid milk (normal strength) figuring 122 grams per quart. The *p*H of the liquid mixture obtained by dilution according to directions is approximately 6.4. Should any other *p*H be required, proper adjustment can be made by addition of other SMACO specially acidified products.

FIRCH'S MA MADE BREAD (SLICED AND UNSLICED)

Manufacturer.—Firch Baking Company, Incorporated, Erie, Pa.

Description.—A white bread (sliced and unsliced) made by the sponge dough method.

Manufacture.—The sponge dough ingredients, 70 per cent patent flour of Northwest wheat, water, yeast and a yeast food containing calcium sulphate, ammonium chloride, sodium chloride and potassium bromate, are mixed in a high speed mixer. The sponge dough is fermented for from four to six hours, after which are added flour, water, salt, dextrose, lard, condensed skimmed milk, malt syrup and a mixture of calcium acid phosphate and calcium peroxide to make the completed dough, which is cut into pieces of desired weight by machine. The pieces are fermented for a short time, molded by machine into loaf form and panned. The panned dough is further fermented and then baked for from thirty to thirty-five minutes in a traveling oven with automatic steam and temperature regulation. The cooled loaves are wrapped in wax-paper.

The factory, equipment and storage rooms for the materials used are kept in strictly sanitary condition.

Chemical Composition.—

(proximate analysis)	per cent
Moisture (entire loaf)	37.1
Ash	1.70
Fat (ether extract)	3.1
Protein (N × 6.25)	9.6
Crude fiber	0.3
Carbohydrates (by difference) other than crude fiber	48.2

Calories.— 2.59 per gram
73.6 per ounce

Claims of Manufacturer.—An excellent wholesome bread.

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SATURDAY, JUNE 6, 1931

FACTORS IN THE SECRETION OF GASTRIC JUICE

The gastric juice is by no means a simple fluid. It contains hydrochloric acid in a "free" state and, in addition, one or more enzymes of characteristic potency. Pepsin has been obtained in crystalline form by Northrup,[1] and the recent experiments of Levene and Helberger [2] suggest that it is a protein quite different from the familiar albuminous substances. There are indications, too, that the acid is secreted by one set of cells—the parietal or oxyntic cells—of the gastric mucosa, whereas the enzyme is derived from the central cells of the fundus glands. Clinicians encounter a considerable variety of specimens of gastric secretion. Some are devoid of acid; more rarely the gastric contents exhibit neither acid nor enzymes. There is by no means always a parallelism of acid concentration and enzyme potency such as one might expect if acid and enzymes were simultaneously secreted by the diverse forms of stimuli that are effective. The momentary concentration of acid is often altered by attending accumulations of neutralizing substances, such as mucus, saliva or regurgitated intestinal contents. Recent investigations indicate, however, that the various types of secretory structures in the stomach can be stimulated independently. Thus Gilman and Cowgill [3] of Yale University have ascertained that the now well known gastric secretagogue histamine acts exclusively on the acid secreting glands, merely filling the stomach with an acid fluid. The sudden rise in total pepsin immediately subsequent to the administration of histamine is in all probability due to a flushing of the lumen of the glands and the mucosa of the stomach with the acid secretion produced and in this way increasing the peptic content of the sample in a purely mechanical fashion. In support of this assertion the authors find that a second injection of histamine, made after the volume of the juice secreted in response to the first stimulation has begun to diminish, will not again bring about a sharp rise in total pepsin, the explanation being that the stomach has already been washed free from residual enzyme. At McGill University in Montreal, Vineberg and Babkin [4] have arrived at the same conclusion. They have supplemented this information by the discovery that pilocarpine activates chiefly the production of the organic substances and enzymes of the gastric juice. Combination of histamine and pilocarpine produces a synthetic gastric juice approaching normal. Histamine has been used for some time as a gastric secretion stimulant in place of the conventional test meal. It might be more desirable to employ a mixture of histamine and pilocarpine. Unfortunately, the latter drug readily produces profuse salivation and hypermotility of the intestine. Whether these are insuperable objections remains to be ascertained. There are indications that the clinical study of peptic function may be of greater diagnostic value than that of hydrochloric acid. Gilman and Cowgill have noted the frequent inference that the proteolytic activity of gastric samples must be high, when the acid content of the juice is high. That this is not necessarily true is now obvious. In their study and in Babkin's investigation, the highest proteolytic power was associated with low acidities. Conversely, high acidities may be associated with low pepsin concentration. Gilman and Cowgill conclude that there are concerned two separate processes, independent in their activities and influenced by individual stimuli.

1. Crystalline Pepsin, editorial, J. A. M. A. **93:** 285 (July 27) 1929.
2. Levene, P. A., and Helberger, J. H.: Crystalline Pepsin of Northrup, Science **73:** 494 (May 8) 1931.
3. Gilman, A., and Cowgill, G. R.: Effect of Histamine on the Secretion of Gastric Pepsin, Proc. Soc. Exper. Biol. & Med. **28:** 194 (Nov.) 1930; The Effect of Histamine upon the Secretion of Gastric Pepsin, Am. J. Physiol. **97:** 124 (April) 1931.
4. Vineberg, A. M., and Babkin, B. P.: Histamine and Pilocarpine in Relation to the Gastric Secretion, Am. J. Physiol. **97:** 69 (April) 1931.

NATIONAL OVERWEIGHT

Widespread interest in the manifestations of overweight, or obesity, in man belongs to comparatively modern times. A distinguished German clinician, the late Professor Ebstein, once grouped fat persons into three categories: those who inspire envy, those who occasion laughter, and those who call forth sympathy. An American colleague has added that fashions in this country are such today that the first group no longer exists. There have, of course, always been instances in which discomforts of undue bodily size awakened concern on the part of the obese and promoted measures for suitable relief. A more serious attitude has been developed in recent years by the publication of statistics gathered by life insurance actuaries indicating an apparent penalty for overweight.

The experience of life insurance companies shows that weight, especially in relation to age, is an important factor in longevity. Of course, due regard must be had to the framework and general physical structure of the individual—to his natural "build." The lowest mortality is found among those who average, as a group, a few pounds over the average weight before age 35 and a few pounds under the average weight after

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age 35. That is, after the age of 35 overweight is associated with an increasingly high death rate and at middle life it becomes a real menace to health, either by reason of its mere presence as a physical handicap or because of the faulty living habits that are often responsible for its development.[1]

The apparent relation of diabetes to obesity is another feature that has brought overweight within the realm of thought of many persons. In the presence of wasting disease or of undernutrition, diabetes is practically unknown. Persons who habitually overeat are especially prone to diabetes. Joslin, among many others, has been particularly insistent for many years that diabetes is largely a penalty of obesity. The warning has been broadcast widely. It seems to be substantiated by much statistical evidence. Perhaps, as has been suggested, in the next generation one may be almost ashamed to have diabetes. McLester [2] has pointed out that the relation of obesity to diabetes is probably not due to a similarity of metabolic disturbance, as was formerly thought, but rather to the fact that obesity leads to lipomatosis of the pancreas, which in turn is associated with a diminution of parenchymal tissue.[3] A further and perhaps more momentous inroad on national overweight is due to the fact that among women, at least, it is today stylish to be thin. This is in contrast to the days when "high nutrition" was supposed to represent bodily fitness.

The attempt to relegate obesity into the category of specific disease is now meeting with little favor. The storage of fat appears to be primarily a feature of metabolic bookkeeping—an indication of the favorable balance between energy intake and the actual requirement of food fuel. There are doubtless instances of physiologic anomalies or pathologic processes leading, as in some endocrine disorders, toward obesity. These are certainly in the small minority. As Taylor [4] recently pointed out, the body weight at any time after childhood (excluding disease) represents the balance of three factors: the amount of food ingested, the amount of body heat lost by radiation, and the amount of muscular work (and exercise) done.

Living conditions of the present day have been conducive to the reduction of muscular work and exposure. Appetite has not declined accordingly; nor has the ready availability of food in a day of higher standards of living. The outcome is one that must be faced frankly. Taylor has summarized the situation convincingly:

> There are instinctive impulses and physiological tendencies in the direction of overweight, which will prevail unless restrained or counteracted. We live in economic circumstances which permit an easy functioning of the influences making for overweight. The national income is rising. The proportion of the national income required to cover the retail cost of the food supply is relatively small. Foodstuffs are available in extraordinary variety and profusion. The per capita food requirement is declining. Economic restraint on eating is lacking except in the poorest classes. Under these circumstances, the probability of average overweight is increasing. Unless restrained, a decade hence the average overweight of people over forty will be significantly higher than it is today; the effect of overweight upon incidence of disease and upon the death rate will become more conspicuous. The solution does not lie in sports or physical exercise. Four factors are to be looked forward to as restraining influences: education in nutrition, medical precept, life insurance admonition and style. And the greatest of these, probably, is style.

1. Fisher, Irving; and Fisk, E. L.: How to Live, New York, 1925.
2. McLester, J. S.: Nutrition and Diet in Health and Disease, ed. 2, Philadelphia, W. B. Saunders Company, 1931.
3. Obesity and Diabetes, editorial, J. A. M. A. **95**: 202 (July 19) 1930.
4. Taylor, A. E.: The National Overweight, Scient. Monthly **32**: 393 (May) 1931.

THERAPEUTIC SERUMS AND ALLERGIC DANGERS

Every one who deals extensively with immune serums realizes that their practical use is attended with certain menaces. These involve manifestations of hypersusceptibility in man. Such a condition may arise in persons in whom a definite previous sensitization has been effected and likewise in those for whom no such sensitization is known or can be conclusively proved. Anaphylactic shock occasionally occurs. So-called serum disease is a more widely known phenomenon. It follows not infrequently on subcutaneous, intravenous or intrathecal injections of animal serums employed for therapeutic purposes and may be delayed or accelerated. The most common symptom is a skin eruption, which is usually urticarial but may vary considerably in type. Edema may appear in various parts of the body, notably the face. Multiple joint pains, albuminuria, leukocytosis and general malaise are sometimes encountered.

The possibility of these occurrences may indicate why the use of therapeutic serums awakens hesitancy in a physician faced with the possibility of discomfort, harm and even death in a patient despite all care to avert any untoward effects. Favorable statistics demonstrating that alarming symptoms occur in only a small proportion of those treated offer slight comfort to the practitioner faced with the necessity of action. As in the case of anesthesia, there is little consolation in the thought that its accidents are repeated at only rare intervals. The menace remains for each patient.

It has been remarked [1] that the only procedure theoretically available for safe serum therapy consists in employment of therapeutic serums derived from animals to the protein of which the recipients show no hypersensitiveness. In practice this procedure usually cannot be carried out because therapeutic serums are prepared from horses almost exclusively. Accordingly, attempts have been made to subject serums or potent serum constituents to procedures that might overcome their species specificity without entirely destroying their remedial action. The most recent effort is reported by Bronfenbrenner, Hetler and Eagle from the Washington University Medical School in St. Louis. They report that, out of many procedures tried so far,

1. Bronfenbrenner, Joseph; Hetler, D. M., and Eagle, I. O: Modification of Therapeutic Sera with a View of Avoiding Complications of Allergic Nature, Science **73**: 455 (April 24) 1931.

coupling with diazotized aromatic amines has given in general the most promising results. Among the compounds prepared, good results were obtained by coupling immune serums with diazonium salts of paratoluidine, para-anisidine, atoxyl, sulphanilic acid, anthranilic acid, naphthionic acid and amino R salt. The preparations obtained have lost their species specificity. They were not precipitated by the potent anti-horse precipitating serum. They did not cause anaphylaxis when injected intravenously into guinea-pigs highly sensitized to horse serum, nor did the injection of these compounds protect the animals against subsequent death from injection of unmodified horse serum. They did not cause skin reactions in persons having horse asthma.

Preparations of this sort have in many instances retained "nevertheless to a fair degree their specific immune properties," as extensive tests on animals have revealed. It is far too early to foresee to what extent, if any, these new observations will find application to the problems of human therapy with immune serums. However, they represent a step in the direction of progress; they give promise of more satisfactory procedures in averting the disasters of hypersensitiveness in man; and they are heartening at a time when physicians often find themselves steering between the Scylla of serious disease and the Charybdis of anaphylactic danger in a sea of therapeutic necessity.

Current Comment

LEAD IN THE GROWING SKELETON

Recently, attention has been directed in increasing measure to the occurrence of formerly unsuspected inorganic menaces to child welfare. In this category falls the use of zinc stearate powders. The fortuitous inhalation of such substances has become responsible for warnings regarding the dangers involved, and these are now to a large extent eliminated. Unfortunately, it is not so easy to exclude the menace of lead ingestion from child life. Painted cribs and all manner of modern playthings offer opportunity for the exercise of that curiosity exemplified by chewing on foreign objects—sometimes a sort of pica, or depraved appetite. Park and his co-workers [1] at the Johns Hopkins Hospital have recently demonstrated that chronic lead poisoning, induced in childhood in the ways just referred to, may reveal itself in roentgenograms of the adolescent skeleton. Shadows appear at the growing ends of the long bones similar to those seen after continued administration of phosphorus.[2] The fact that lead produces such definitely recognizable changes in the bone in process of formation promises to have considerable diagnostic value in cases that have heretofore offered problems of considerable import. The real meaning of the new observation is still obscure. The fact that only the bone in process of growth is affected must mean, according to Park, that the lead either enters into the chemical composition of the bone or influences cellular activity in such a way that the character of the bone formed becomes altered. It has been demonstrated in other cases that lead compounds can actually enter the skeleton. The fact that only those parts of the skeleton in process of growth at the time of ingestion of lead are affected is proved by the entirely normal structure of the old bone proximal to the lesions, the sharp limitation of the lesions to the growing parts, and a degree of involvement at any point exactly proportional to the rate of growth at that point. Obviously, Park concludes, growth in any bone takes place in many places, but only where growth occurs rapidly do the changes readily reach such magnitude as to show in roentgenograms. A new field of interest in relation to the dangers of the environment of childhood is thus opened.

1. Park, E. A.; Jackson, Deborah; and Kajdi, Laslo: Shadows Produced by Lead in the X-Ray Pictures of the Growing Skeleton, Am. J. Dis. Child. **41**: 485 (March) 1931.
2. Phemister, D. B.: The Effect of Phosphorus on Growing, Normal and Diseased Bones, J. A. M. A. **70**: 1737 (June 8) 1918.

THE LIVER AND THE PRODUCTION OF LYMPH

There seems to be a traditional uncertainty concerning the lymph. This interstitial fluid appears to resemble the blood plasma closely; in fact, the statement is frequently made that it represents the fluid portion of the blood, a difusate through the capillary walls into the tissue spaces. It carries nutrients and respiratory gases to the cells and removes the waste products of metabolism from them. The transport of absorbed fats from the intestinal mucosa to the systemic circulation is largely by way of the thoracic duct. The pericellular lymph is collected into lymph capillaries, which unite to form larger vessels; and these, after passing through lymph nodes and glands, empty into one of the large ducts, which in turn are in communication with the blood vessels. The flow of lymph in the large ducts is not uniform, being ordinarily slow in the quiescent, postabsorptive state and rapid in the height of digestion. Lymphagogues, substances such as egg albumin, tissue extracts and peptone, when injected produce an increased flow of lymph arising primarily from the splanchnic area. This lymph was early found to come largely from the liver, as was also the augmented flow when the vena cava was obstructed. There has thus arisen the conception that the liver plays the primary part in the formation of the lymph. Markowitz and Mann [1] have reexamined the question by first ligating the periportal lymphatics in an experimental animal and then injecting peptone. The expected increased flow from the thoracic duct was as well marked as in an intact animal, despite the elimination of the hepatic lymphatics. In another set of experiments the liver was removed in toto before peptone was injected. Nevertheless, a definite lymphagogic effect was observed in this case also. On the basis of these direct studies the conclusion seems warranted that, whatever rôle the liver may have in the formation of lymph in the normal intact animal, under the conditions in which its activity is eliminated the formation of lymph proceeds in the usual manner.

1. Markowitz, C., and Mann, F. C.: Am. J. Physiol. **96**: 709, 1931.

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Association News

THE PHILADELPHIA SESSION

Radio Program During the Meeting

Forty-one physicians of national and international prominence will take part in the broadcasting program to be presented during the week of the Session of the American Medical Association in Philadelphia under the auspices of the Philadelphia County Medical Society.

The program, which will be broadcast from stations WCAU, WIP-WFAN, WLIT and WFI, will consist of talks, morning, afternoon and evening, every day of the Session. Subjects of interest to the general public will be discussed. Among the titles on which various speakers will talk are "The Deafened Child," "Health Hazards of the Declining Years," "Relation of Body Weight to Health," "Your Feet Deserve Good Care," "Cataract," "Delaying Your Funeral," "Causes of Obesity," "Diabetes," "Allergic Diseases," "Rheumatism" and "Rehabilitation of the Disabled."

Dr. William Gerry Morgan, Washington, D. C., President of the American Medical Association, will open the series of radio talks by an address from studio WIP-WFAN Sunday morning, June 7. Dr. E. Starr Judd, Rochester, Minn., President-Elect of the Association, will inaugurate the series of talks over station WCAU at 3:15 in the afternoon. Lieut. Colonel Dear of the United States Medical Corps will be the first speaker on the program broadcast from studio WLIT. He will talk at 5:35 p. m. on the same day.

Dr. Howard Kelly of Baltimore will talk on "Advantages of Electro-Surgery" over station WIP-WFAN, Monday afternoon. Other speakers over various stations on Monday will be Drs. John A. Hartwell, president, New York Academy of Medicine; Chevalier Jackson, and Assistant Surgeon General W. F. Draper of the Public Health Service.

Dr. Morris Fishbein, Editor of THE JOURNAL, will inaugurate a series of four one hour addresses to the public to be presented at and broadcast from the Gimbel Auditorium each afternoon during the Session. Dr. Fishbein will be introduced by Dr. Joseph C. Doane, chairman of the Committee on Health Education of the Philadelphia County Medical Society, under the direction of which committee the broadcasting program is being directed. Other men to deliver public health addresses during the week from Gimbel Auditorium are Dr. Harold J. Knapp, Commissioner of Health in Cleveland; Surgeon General Hugh Cumming of the United States Public Health Service at Washington, D. C., and Dr. Lawrason Brown, Saranac Lake, N. Y.

Dr. H. Marshall Taylor of Jacksonville, Fla., will be the first speaker in the series of radio talks over station WFI, which will start at 4, Tuesday afternoon. Dr. Taylor will speak on "Hygiene of Swimming."

Plans have been completed for a one hour broadcast of a medical clinic from one of the Philadelphia hospitals. Much interest is centered about this event as it will be the first time that such a broadcast has been attempted. The name of the hospital from which this event will take place has not yet been disclosed.

Plans are also under way for a national hook-up of a one hour program of addresses by prominent men during the Session. This national hook-up will be carried over the National Broadcasting chain.

Among men who will talk during the week are Drs. H. J. Ullmann, Santa Barbara, Calif., president of the American Radium Society; Milton C. Winternitz, dean of the Yale University School of Medicine; J. H. J. Upham, Columbus, Ohio, dean of the Ohio State University College of Medicine; Felix Underwood, Jackson, Miss., president of the Southern Medical Association; Arthur J. Cramp, Chicago, Director, Bureau of Investigation of the American Medical Association; H. O. McPheeters, Minneapolis; Harold M. Hays, New York; Milton B. Cohen, Cleveland; Russell L. Cecil, New York; Max Cutler, director of the Cancer Clinic of the Michael Reese Hospital, Chicago; Armitage Whitman, New York; Elliott P. Joslin, Boston; Harry E. Mock, Chicago; Thurman B. Rice, Indianapolis; William Allen Pusey, Chicago; Bruce McCreary of the Pennsylvania State Department of Health; Austin A. Hayden, Chicago; Emil Novak, Baltimore; George F. Suker, Chicago; Leonard G. Parsons, Birmingham, England; B. P. Babkin, Montreal, Canada; Philip Lewin, Chicago; Arthur J. Coca, New York, and L. H. Newburgh, Ann Arbor, Mich.

Assistance for Automobilists

The Automobile Club of Philadelphia desires to be of service during the annual meeting in Philadelphia to members of the medical profession who are also members of the American Automobile Association. Physicians who are members of both associations on arrival in Philadelphia should get in touch with Mr. W. L. Robinson, head of the Public Relations Department of the Automobile Club of Philadelphia, who will be glad to be of any possible assistance. Telephone Rittenhouse 8800.

MEDICAL BROADCAST FOR THE WEEK

American Medical Association Health Talks

The American Medical Association broadcasts at 10 a. m. on Monday and 10:30 on Saturday, over Station WBBM (770 kilocycles, or 389.4 meters).

The program for the week is as follows:

June 8. A Hiking Holiday.
June 13. Facing Cancer with Courage.

Five minute health talks may be heard over the Columbia Broadcasting System on Monday, Wednesday, Thursday and Saturday, from 1 to 1:05 p. m., daylight saving time.

The program for the week is as follows:

June 8. Babies' Eyes in Summer.
June 10. Babies' Eyes in Summer.
June 11. Hot Weather Meals.
June 13. Hot Weather Meals.

Medical News

(PHYSICIANS WILL CONFER A FAVOR BY SENDING FOR THIS DEPARTMENT ITEMS OF NEWS OF MORE OR LESS GENERAL INTEREST: SUCH AS RELATE TO SOCIETY ACTIVITIES, NEW HOSPITALS, EDUCATION, PUBLIC HEALTH, ETC.)

CALIFORNIA

University News.—The board of trustees of Stanford University has accepted an offer of $2,500,000 from an unknown donor toward the erection of a medical school building. The gift is on condition that the university endow the building with an additional $1,250,000, the sum to be raised before Feb. 1, 1932.

Health Officers Appointed.—The following appointments were recently announced: Dr. Wilson Stegeman, health officer of Del Norte County, succeeding Dr. Francis M. Stump; Dr. Louis J. Lista, health officer of Siskiyou County, succeeding Dr. Charles Pius; Dr. Robert H. Heaney, health officer of Yreka, succeeding Dr. Pius.

Society News.—Dr. Leo Eloesser, San Francisco, addressed the San Diego County Medical Society, May 12, on "Treatment of Abscess of the Lung."——Dr. Harold P. Hill addressed the San Francisco County Medical Society, May 12, on "Agranulocytic Angina," and Dr. Philip King Brown, "Relationship between Aleukemic Lenkemia, Mononucleosis and Agranulocytic Angina."——The Los Angeles Surgical Society was addressed, May 8, by Dr. Arthur E. Guedel, Beverly Hills, on "An Endotracheal Anesthetic Technic."——Karl F. Meyer, Ph.D., San Francisco, spoke before the Los Angeles County Medical Association, May 21, on "Production of Certified Milk."——Drs. John C. Wilson and Kenneth S. Davis spoke on "Radiological Study of Two Unusual Bone Tumors" before the Los Angeles Clinical and Pathological Society, May 28. ——Dr. Reuben Peterson, Ann Arbor, Mich., spoke on "Conservatism in Obstetrics and Gynecology" before the Oakland County Medical Society, May 20.——The Orange County Medical Association was addressed, April 7, among others, by Drs. Waldo S. Wehrly on "The Early Diagnosis of Tuberculosis" and Albert E. Chase, Santa Ana, on "X-Ray Findings in Early Pulmonary Tuberculosis." Motion pictures of "Emergency Operations on Wounds of the Liver and Bladder" and "Colles'

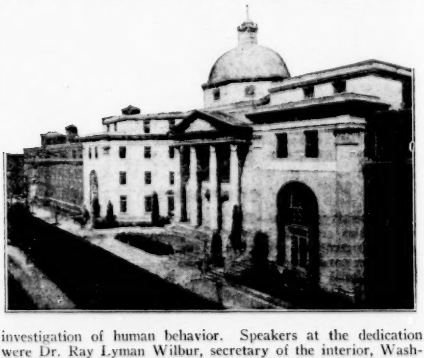
Fracture" were shown.——A paper on "Clinical Aspect of the Functions of the Suprarenal Gland" was read by Dr. Alfred E. Koehler before the Santa Barbara County Medical Association, April 13, in Santa Barbara.

COLORADO

Society News.—Dr. Robert Sonnenschein, Chicago, addressed the Colorado Ear, Nose and Throat Society, Denver, April 4, on "The Legendary Lore of Otolaryngology." In the afternoon, he gave a demonstration of hearing tests before the society.——Dr. Harry Gauss addressed the Medical Society of the City and County of Denver, May 5, on "Etiology and Management of Chronic Diarrhea." Karl F. Meyer, Ph.D., San Francisco, addressed the society, May 11, on "Public Health Problems in the West." The May 19 meeting of the society was addressed by Drs. Gauss, George W. Stiles and Frederick E. Becker, Denver, on "Etiology and Management of Chronic Diarrhea"; "Insect Borne Diseases of Man and Beast" and "Diagnosis and Treatment of Rocky Mountain Spotted Fever," respectively.——Dr. Walter K. Reed, Boulder, among others, addressed the Boulder County Medical Society, April 9, on "Multiple Compound Fractures of Femur, Tibia and Fibula." The society was addressed, May 14, by Severance Burrage, Ph.D., Denver, on "Sporotrichosis."——Dr. Oscar D. Groshart, La Junta, addressed the Crowley County Medical Society recently on "Medical Economics."——Dr. Zenas H. McClanahan, Colorado Springs, among others, addressed the El Paso County Medical Society, April 8, on "Clinical Case of Raynaud's Disease."——Dr. Howard A. LaMoure, Pueblo, addressed the Pueblo County Medical Society, April 21, on "Morphine Addiction."

CONNECTICUT

Dedication of Institute of Human Relations.—Yale University dedicated, May 9, the new building of the Institute of Human Relations, established two years ago for scientific



investigation of human behavior. Speakers at the dedication were Dr. Ray Lyman Wilbur, secretary of the interior, Washington, D. C.; George E. Vincent, Ph.D., New York, former president of the Rockefeller Foundation; Gov. Wilbur L. Cross of Connecticut, for many years dean of the Yale Graduate School, and President James Rowland Angell, all of whom discussed the functions and possibilities of the institute. The building was financed by the Rockefeller Foundation and the General Education Board. Quarters are provided for the department of psychiatry and mental hygiene, a department of psychology, a child development clinic, a division of psychobiology and research divisions in the social sciences, including law, religion, industrial engineering, sociology and anthropology. The institute has no teaching faculty and grants no degrees. Members of its staff hold appointments in the teaching divisions of the university, and students who wish to work in the institute must be registered in one of the university schools.

FLORIDA

State Medical Election.—Dr. Gaston H. Edwards, Orlando, was elected president of the Florida Medical Association at its recent annual meeting in Orlando. Other officers elected were Drs. Alexander M. C. Jobson, Tampa, James Q. Folmar, Chattahoochee, and Joseph Halton, Sarasota, vice presidents, and Shaler A. Richardson, Jacksonville, secretary-treasurer, reelected. The next annual meeting will be held at Sarasota.

GEORGIA

State Medical Election.—Dr. Arthur G. Fort, Atlanta, was installed as president of the Medical Association of Georgia at its recent annual meeting in Atlanta. Dr. Marvin M. Head, Zebulon, was made president-elect, and Dr. Allen H. Bunce, Atlanta, reelected secretary. The next annual session will be held at Savannah, May 10-13, 1932.

Clinic on Venereal Diseases.—The twelfth annual complimentary institute-clinic on venereal diseases of the state board of health in conjunction with Emory University School of Medicine will be held, June 8-11. This clinic is similar to a graduate course for physicians and is usually held during the annual meeting of the alumni association of the school of medicine. All phases of venereal diseases will be discussed, and new methods of treatment will be considered. The visiting physicians will be guests of the Fulton County Medical Society at a buffet supper, June 11.

IDAHO

Personal.—The Idaho Medical Examining Board is now composed of the following members, appointed April 8: Drs. Joseph V. Clothier, Pocatello, chairman; Bartholomew Chipman, Grangeville, secretary; Ellis Kackley, Soda Springs; William R. Hamilton, Weiser; William L. Frazier, Boise, and Herbert C. Mowery, Wallace.

ILLINOIS

Dr. Haumesser Honored.—Friends of Dr. George J. L. Haumesser held open house, April 29, in honor of his having completed fifty years in the practice of medicine in Shumway. During this time, among other positions, Dr. Haumesser has been president and member of the village board, justice of the peace, and county coroner for six years.

No Diphtheria Deaths in Years.—Stark County has had no diphtheria deaths in eight years, and Boone and Wabash counties have had no deaths from this cause in seven years, the state department of public health reports. Herrin holds the record for cities of 10,000 or more, having had no deaths in six years. LaSalle and Urbana have had no deaths from diphtheria in five years, and Bloomington in four. No other Illinois city of over 10,000 has been free from diphtheria deaths for more than one year. Last year fifty-six counties and nineteen cities reported no deaths from this disease.

Academy of Medicine to Care for the Indigent.—At a recent meeting of the Champaign County Medical Society, a new plan was adopted to care for the county's indigent poor. The Champaign County Academy of Medicine was organized, its membership consisting of those physicians who agreed to care for the sick poor according to the proposed plan. Following a meeting with the county board of supervisors, the Champaign County Academy of Medicine took over the work at the county hospital at much less than had been formerly paid. According to the plan, a group of four to six men do the work at the hospital for two months. A captain is appointed for each group, and medical, surgical and obstetric cases are rotated. At the end of the two months a meeting is held, interesting cases are presented, papers read and problems discussed. The hospital committee of the board of supervisors is invited to meet with the physicians. Any member of the Champaign County Medical Society in good standing may join the academy of medicine at any time by signifying his willingness to work. The money derived from this service goes to the academy as a whole. Although it has not been decided to what purpose the money may be expended, it is felt that it will be used for a medical library and librarian, or possibly to purchase articles needed at the county hospital to care for the patients.

Chicago

Graduate Clinics at Cook County Hospital.—The Chicago Medical Society is sponsoring the graduate clinics to be given at Cook County Hospital, June 22-July 3. The object of these clinics is to instruct the general practitioner, the general surgeon and the general medical man rather than the specialists in the allied branches. The clinics will be divided into two main groups—medical (including the medical specialties) and surgical (including the surgical specialties). A symposium on obstetrics and gynecology will be held, June 25-26. The registration fee is $10.

University News.—The University of Illinois College of Medicine will hold alumni clinics, Thursday, June 11, and Friday, June 12, as follows: Thursday morning, Research Hospital, 1819 West Polk Street; afternoon, Cook County Hospital; Friday morning, University Hospital; afternoon,

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Research Library. A dinner will be given by the alumni and faculty to the senior class Friday evening at the Palmer House. The clinic is open to the profession.——George L. Clark, Ph.D., Urbana, Ill., addressed the Medical Research Club of the University of Illinois College of Medicine, May 27, on "X-Ray Diffraction of Studies of Natural Materials Including Human Tissues."

INDIANA

Society News.—Dr. James H. Stygall, Indianapolis, addressed the Howard County Medical Society, at Kokomo, May 1, on "Problems of Lung Diagnosis and Treatment."—— Dr. John A. Key, St. Louis, addressed a joint meeting of the Vigo County Medical Society, Fifth District Medical Society and the Terre Haute Academy of Medicine, May 1, on "Reaction of Joints to Disease and Injury."——Dr. Dudley T. Dawson, Danville, Ill., addressed the Fountain-Warren County Medical Society at Kingman, April 2, on "Phases of Insanity of Interest to the Practitioner."

Meeting of County Secretaries.—Dr. Albert E. Bulson, Fort Wayne, spoke on "Publication and Editorship of the Indiana State Medical Journal" at a joint meeting of the Indianapolis Medical Society and county secretaries, May 26, in Indianapolis. Other speakers were Drs. Rosco G. Leland, Chicago, "Medical Economics"; Harry M. Hall, Wheeling, W. Va., "Descartes was Right"; Chester A. Stayton, Indianapolis, "Malpractice Insurance—Theories and Fact"; John C. Burkle, Lafayette, "Suggestions for Program at State Meeting"; Donald W. Schafer, Fort Wayne, "Problem of Caring for the Indigent Sick"; Maynard A. Austin, Anderson, "Problem of Giving Free Information to Insurance Companies," and Albert M. Mitchell, Terre Haute, "Liaison Problem and the Walking Delegate."

LOUISIANA

Gift of Collection of Old Prints.—Dr. Fayette C. Ewing, Alexandria, recently presented to the Tulane University of Louisiana School of Medicine, New Orleans, a collection of old prints reflecting on the healing art. This collection was exhibited for the first time at the fifty-second annual meeting of the Louisiana State Medical Society. The group includes the work of Benjamin West, "Alexander and Philip, His Physician"; Hogarth, "The Good Samaritan"; Edmund Bristowe, "The Tooth Ache"; such caricaturists as J. Gilray, "Medical Horrors," and Cruikshank, "A Dandy Fainting." A print of Edward Jenner drawn on stone is also included in the collection. Titles of other prints in the group are "La Melancholie," "Thomas Willis" and "Taking Physic."

MAINE

State Medical Meeting at Greenville.—The seventy-ninth annual session of the Maine Medical Association will be held at Greenville, June 25-27. It was erroneously reported in THE JOURNAL recently that the meeting would be held at Portland.

MASSACHUSETTS

Society News.—At the New England Conference on Mental Hygiene in Education, sponsored by the Connecticut, Rhode Island and Massachusetts societies for mental hygiene, in Boston, May 1-2, Dr. Wilhelm E. Blatz, Hamilton, Ont., among others, spoke on "How the Teacher May Create Mental Hygiene Problems," and Dr. Smiley Blanton, Poughkeepsie, N. Y., "Modern Education as Viewed by the Mental Hygienist." ——Mr. Chester H. Clark, chief, narcotic division, Internal Revenue Service of Boston, delivered a lecture on the Harrison Narcotic Act and the problems incident to drug addiction, April 29, before the students of Boston University Medical School. ——Dr. Kenneth J. Tillotson and George E. Gardner, Ph.D., addressed the New England Society of Psychiatry, April 21, at Waverley, on "The Mental Hygiene Clinic at the Massachusetts General Hospital" and "Psychoses and Infant Behavior."——Dr. Irving S. Cutter, dean, Northwestern University Medical School, Chicago, addressed the Harvard Medical Society, April 14, on "Two Pioneer Army Surgeons—Edwin James and John Gale."

Dr. Scamman Resigns.—Dr. Clarence L. Scamman, Boston, resigned as deputy commissioner of public health of Massachusetts and director of the division of communicable diseases, effective May 15, to become director of the division of public health of the Commonwealth Fund of New York, succeeding Dr. William J. French, resigned. He will have charge of the development of rural health service in various states. Dr. Scamman was given a farewell dinner, May 1, at the Harvard Club of Boston by friends and co-workers and presented with a traveling bag. Dr. George H. Bigelow, commissioner of public health, presided. Dr. Gaylord W. Anderson will succeed Dr. Scamman, and Dr. Nels A. Nelson will succeed him as assistant director of the division of communicable diseases. Dr. Walter W. Lee has been appointed as state health officer in the Berkshire district, succeeding Dr. Frederick S. Leeder, who has a similar position in the Southern Berkshire Health District. Dr. Roderick Heffron has been appointed in charge of the field work in connection with the pneumonia study being conducted by the department under a grant of the Commonwealth Fund.

MICHIGAN

Hoxsey Given Jail Sentence.—Harry M. Hoxsey, the cancer-cure quack and late director of the Detroit Cancer Clinic, who was found guilty, May 8, of practicing medicine without a license in Detroit, was recently sentenced to serve six months in the Detroit House of Correction. Of course, his attorney filed a motion for a new trial. The Detroit paper that reported the case also reported that Hoxsey had been fined $100 in Hillsboro, Ill., in 1927, and $100 in Lewistown, Ill., in December, 1930, for violation of the Illinois medical practice act.

Courses in Public Health at University.—Six week-end public health institutes, beginning June 26 and lasting through August 8, excluding July 3-4, will be given at the University of Michigan, Ann Arbor. The fee is $3 for each session or $18 for the complete course. All branches and activities of interest to public health workers will be emphasized. A certificate will be given to those who attend all institutes. The regular summer courses begin June 29 and continue through August 7 and will include child and general hygiene, vital statistics, methods and materials in health education, nutrition, principles of public health nursing, administration and organization in public health nursing, industrial and mental hygiene, and epidemiology. Credits will be given for the regular courses. An institute for tuberculosis workers will be conducted, June 29-July 11, by the National Tuberculosis Association and the Michigan Tuberculosis Association in cooperation with the division of hygiene and public health of the University of Michigan and under the direction of Philip P. Jacobs of the National Tuberculosis Association, New York. Further information about summer work at the university may be obtained from Dr. John Sundwall, director, division of hygiene and public health.

Society News.—The Calhoun County Medical Society was addressed at Albion, May 5, by Drs. Ara D. Sharp, Albion, and Claude E. Hale, Jr., Marshall, on "Surgical Abdomen" and "Early Diagnosis." —— Drs. Richard M. McKean and Elwood A. Sharp, Detroit, addressed the Highland Park Physicians' Club, May 7, on "Recent Advances in the Treatment of Anemias."——Dr. Willis C. Campbell, Memphis, addressed the Wayne County Medical Society, Detroit, May 26, on "Ununited Fractures."——Dr. Wilfrid A. Crawford, Manton, addressed the Tri-County Medical Association at Cadillac, April 23, on blood pressure, and Dr. John F. Gruber read an article on childbirth which is said to have been written 104 years ago.——The Washtenaw County Medical Society was addressed, May 11, by Dr. Paul W. Harrison, medical missionary at Muscat, Arabia, on "Fourteen Years of Medical Service in Arabia." Malcolm H. Soule, Sc.D., Ann Arbor, spoke on "Some Medical Problems in Porto Rico."—— Dr. Wilbert B. Hinsdale, professor emeritus of medicine and custodian of Michigan archeology in the University of Michigan Museums, was elected president of the Michigan Academy of Science, Arts and Letters at its thirty-sixth annual meeting in Ann Arbor, March 19-21.——Dr. William S. O'Donnell, Detroit, spoke on "Nephritis and Associated Conditions in Children," before members of the Kalamazoo Academy of Medicine, May 19, in Kalamazoo, and Dr. Henry Hulst, Grand Rapids, "Adventures of a Diabetic Abroad."

MISSOURI

Society News.—The Jackson County Medical Society, Kansas City, was addressed, April 28, by Drs. Erwin von Graff, Vienna, Austria, on "Endometrioma"; Dar D. Stofer, Kansas City, "Tetany as a Result of Allergy"; James M. Nisbett, Kansas City, "Irritable Bladder in the Female," and Edwin H. Schorer, "Toxin-Antitoxin and Vaccination."——The St. Francois-Iron-Madison County Medical Society was addressed, February 27, by Drs. George A. Mellies, St. Louis, on "Surgical Aspect of Pleural Effusions"; Frank L. Morse, "Bone Graft in Diseases and Injuries of the Spine," and John D. Hayward, "Applied Anatomy in Upper Abdominal Diseases." Drs. Adolph H. Conrad and Louis H. Jorstad, St. Louis,

addressed the society at Leadwood, March 24, on "Drug Eruptions" and "Lip Cancer," respectively.——Dr. George Leonard Harrington, Kansas City, addressed the Boone County Medical Society, March 3, on "Psychology in Medicine."

Personal.—Dr. T. Guy Hetherlin, Louisiana, was appointed coroner of Pike County, May 4.——Dr. Walter E. Dandy, Baltimore, formerly of Sedalia, was guest of honor at the annual Medical Day of the University of Missouri School of Medicine, April 17, in Columbia. Dr. Dandy spoke on "New Operative Procedures for Treatment of Lesions of Cranial Nerves."——About seventy-five guests attended a dinner in honor of Dr. Frank P. Norbury, Jacksonville, Ill., given by Dr. Jonas C. Lyter, St. Louis, May 1. Dr. Norbury spoke on "The Nervous Patient."

NEBRASKA

State Medical Meeting and Election.—At the annual meeting of the Nebraska State Medical Association in Omaha, May 12-14, the guest speakers were Drs. Fred W. Rankin, Rochester, Minn., "Recent Advances in the Diagnosis and Treatment of Cancer of the Colon"; Edgar J. Huenekens, Minneapolis, "Focal Infection in Childhood"; Evarts A. Graham, St. Louis, "How Can We Estimate and Improve the Operative Risk in Patients with Disease of the Biliary Tract." A symposium on obstetrics was participated in by Drs. Fred L. Adair, Chicago, Jennings C. Litzenberg, Minneapolis, and Palmer Findley, Omaha. Dr. Lucien Stark, Norfolk, was installed as president of the association at this session; Dr. Arthur E. Cook, Randolph, was made president elect, and Dr. Roy B. Adams, Lincoln, was reelected secretary. The next annual meeting will be held in Lincoln in May, 1932.

NEW JERSEY

Illegal Practitioners Prosecuted.—The following persons were recently prosecuted by the State of New Jersey Board of Medical Examiners, Trenton, for practicing medicine without a license:

Walter B. Carr, Millville, naturopath.
James W. Frazer, licensed chiropractor, Bayonne; exceeded his license by giving drugs.
Roger Henry, Jr., Trenton.
Dabbi Francisco, conducted Little Spanish Homeopathic Drug Store in Newark.
Helen Quasdorf, Clifton, advertised electrical treatments, colonic irrigations and so forth; paid the penalty.
Eugene B. Taylor, Cranford.
Frank Vermeulen, chiropractor of Paterson.
Joseph C. Kindler, physiotherapist, Jersey City.
Hugh F. Mitchell, West New York, held himself out as a physician.
Mary Kaczmarek, licensed midwife of Perth Amboy; exceeded her license by administering pituitrin.
Joseph Brander, South Amboy.
Miriam Resnick, masseuse of Perth Amboy, paid the penalty.
Mildur Karlson, conducts Karlson Baths on the Boardwalk in Atlantic City.
Kathryn McBride, Atlantic City, gave electrical treatments, and paid the penalty.
Don D. Modica, Atlantic City, second charge.
Evelyn Wienckiewicz, Irvington, naturopath.
Theodore B. Mickley, masseur of Perth Amboy.
Paolo Piccone, Hackensack, gave drugs.
Alfonso De Mercurio, druggist of Bayonne, paid the penalty.
William C. Rober, unlicensed chiropractor of Bayonne.
David Decker, Newark, prescribed Indian Herb Remedies; committed to jail for thirty days.
Walter C. Quinn, electrotherapist of Plainfield.
Maria Vidale and Sophia Kovacs, license to practice midwifery revoked; convicted of practicing criminal abortion.

NEW MEXICO

State Medical Election.—At the recent annual meeting of the New Mexico Medical Society, Albuquerque, Dr. Meldrum K. Wylder, Albuquerque, was installed as president, and Dr. Fred D. Vickers, Deming, was made president elect. Dr. Leo B. Cohenour, Albuquerque, was reelected secretary. The next annual session will be held in Santa Fe in May, 1932.

NEW YORK

Dr. Babbott Appointed President of Medical College.—Dr. Frank Lusk Babbott, Jr., has been appointed president of Long Island College of Medicine, Brooklyn, to succeed James C. Egbert, Ph.D., whose resignation becomes effective, June 30. The newly appointed president will assume his full time duties, July 1. Dr. Babbott, who has been associated with the department of pediatrics at the medical college for several years, has been assistant professor of pediatrics and assistant dean since 1927. He received his M.D. degree from Columbia University College of Physicians and surgeons in 1918.

Flat Rates and Prenatal Care.—Special flat rates for maternity patients were recently put into effect at the Northern Dutchess Health Service Center, Rhinebeck. This system was adopted, it is reported, "to promote more real and genuine care of prenatal cases which indeed are often neglected." Ward patients are charged $45 and semiprivate patients $55; these fees are based on a ten day stay at the hospital. All patients who wish to avail themselves of these rates must present a certificate from their physician showing that they have had adequate prenatal care from at least the third month of pregnancy. If patients fail to do this, they are obliged to pay the regular hospital charges.

Society News.—The Medical Society of the County of Albany was addressed, May 18, by Dr. Augustus B. Wadsworth on "Laboratory Service of the State" and "Problems in Serum Therapy"; Dr. Ruth Gilbert, "Undulant Fever," and Mary B. Kirkbride, "Recent Studies Relating to Diphtheria."——Dr. Carl J. Wiggers, Cleveland, addressed the Onondaga County Medical Society, Syracuse, May 5, at a joint meeting with Alpha Omega Alpha, on "Physical and Physiological Aspects of Arteriosclerosis and Hypertension," an Alpha Omega Alpha prize essay.——The medical societies of Onondaga and Cayuga counties conducted a series of graduate lectures during March and April, given at Syracuse in the afternoon and at Auburn in the evening, with the following speakers, all of New York: Drs. Rupert Franklin Carter, "Carcinoma of the Stomach, Large Intestine and Rectum"; Meyer H. Freund, "Common Disorders of the Rectum"; Frederic W. Bancroft, "Appendicitis, Acute and Chronic"; Philip MacGuire, "Ulcers of the Stomach and Duodenum"; Henry W. Cave, "Gallbladder Disease," and Ralph R. Moolten, "Diagnosis and Classification of Goiter."

New York City

Court Forbids Dumping Garbage in Sea.—The Supreme Court of the United States, in its decision, May 18, upheld New Jersey in its fight to prevent pollution of harbor waters by the dumping of New York City garbage. The city shall have a reasonable time to construct incinerators before the injunction takes effect, the decision says. Fifteen incinerators are now in course of construction, at a cost of $17,375,000. The sanitation department recently announced a plan to reduce harbor pollution in general from other sources than garbage disposal. This plan, including the expenditure of $378,000,000 in the next fifty years, provides, in addition to incinerators, for the reduction of sewage to sludge.

Mental Hygiene and Modern Living.—The importance of instruction in mental hygiene from the point of view of its value in aiding persons to meet the demands of modern life was stressed, May 14, at the two-day conference, sponsored by the National Committee for Mental Hygiene and the American Association of Mental Hygiene Executives. Dr. Clarence M. Hincks, Toronto, Ont.; general director of the National Committee for Mental Hygiene, outlined the four projects in a mental hygiene survey which emphasized the importance of instruction, the improvement of treatment arrangements for patients with mental disease and the earlier treatment of serious mental disorders. Among the speakers was Dr. Milton C. Winternitz, dean, Yale University School of Medicine, New Haven; Homer Folk, secretary, State Charities Aid Association, presided.

Society News.—Dr. Frank B. Cross, Brooklyn, addressed the Medical Society of the County of Kings, May 19, on "Stimulation of the Renal Secretion," and Dr. George Draper, "Human Constitution in Relation to Disease."——The Brooklyn Society of Internal Medicine was addressed, May 22, by Drs. John H. Crawford and William M. Genthner on "Paroxysmal Tachycardia Related to Menstrual Period" and "Actinomycosis of the Lung," respectively.——Dr. Michael P. Lonergan spoke on "What the Psychiatrist Expects from the Occupational Therapists" at the annual meeting of the New York State Association of Occupational Therapists, May 16, in New York; Dr. Walter P. Anderton's subject was "What the Doctor of Internal Medicine Expects from the Occupational Therapists."——Dr. Henry Monroe Moses read a paper on "Carcinoma of the Lung" at the meeting of the Medical Society of Bay Ridge, May 12.

OHIO

Dedicate Unit in Medical Center.—The new Lakeside Hospital of the University Hospitals of Cleveland will be dedicated, June 17. The opening of the building in February completed the program of development at Western Reserve University School of Medicine, which, among other things, includes the schools of medicine, nursing, pharmacy and dentistry; the Institute of Pathology; Babies' and Children's, Maternity and

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Rainbow hospitals; the medical library and nurses' dormitory. Dr. Hans Zinsser, professor of bacteriology and immunology, Harvard University Medical School, Boston, will make the dedication address. Mr. Samuel Mather, who built the school of medicine and who has been the largest single contributor in the program of expansion, will preside at the exercises (THE JOURNAL, Feb. 2, 1931, p. 621).

Society News.—Dr. John W. Adrain addressed the Lorain County Medical Society, April 14, on "Ambulant Dietetic Treatment of Duodenal Ulcer."——Drs. William A. Melick, Zanesville, and Sterling W. Obenour, Roseville, were the speakers before the Muskingum County Academy of Medicine, April 1, on "Pleuritic Effusions" and "Nonsurgical Treatment of Prostatic Disease," respectively.——Dr. David W. Heusinkveld, Cincinnati, spoke on diagnosis of early tuberculosis at the April 13 meeting of the Scioto County Medical Society, Portsmouth.——Dr. George F. Zinninger, Canton, discussed the life of Sir William Osler, and Dr. Olin G. Wilson, Canton, congenital heart disease, before the Mahoning County Medical Society, April 21.——Drs. Franklin L. Shiveley and Howard V. Dutrow discussed medical economics and medical ethics, respectively, at the meeting of the Montgomery County Medical Society, Dayton, May 1.——Drs. Alonzo H. Waterman and Frank Wright, Chicago, and Florimond J. LeBlanc, Elgin, Ill., presented a symposium on blood colloids before the Hancock County Medical Society, Findlay, April 30.——Dr. George T. Pack, New York, addressed the Columbus Academy of Medicine, April 6, on "Radiation Therapy of Mammary Cancer."

PENNSYLVANIA

Philadelphia

Hospital News.—The erection of a cancer hospital at the University of Pennsylvania is provided for in the will of Mrs. Mary B. C. Crothers Dulles. The estate shall go first to her daughter, and the residue will be given to the university to erect the hospital as a memorial to Mrs. Dulles' son, William Crothers Dulles.

Chair in Orthopedic Surgery.—A chair in orthopedic surgery will be established at Jefferson Medical College as the result of the gift of $100,000 by Miss Catherine R. Edwards. The chair will be a memorial to Miss Edwards' brother, James, and will carry on the work of Mr. Edwards in his teaching and research in furtherance of care for juvenile feet. Under the terms of the gift the income may be used to include fellowships, apparatus and appliances for crippled children and research. Mr. Edwards was the founder of J. Edwards and Company, manufacturers of children's shoes.

Dr. Minehart Honored.—The Minehart Scientific Society of Temple University held its annual dinner, May 14, as a testimonial to Dr. John R. Minehart, for whom the society was named. Dr. Minehart, a graduate in medicine, has been dean of the school of pharmacy at Temple University for twenty-four years. Andrew G. Du Mez, Ph.D., dean of the school of pharmacy at the University of Maryland, was the principal speaker, and George K. Schacterle, Phar.D., president of the Pharmacy Alumni Association of Temple, was toastmaster. Other speakers included Charles E. Beury, LL.D., president of the university, Dr. Minehart and Prof. Robert Rowen, B.S.

RHODE ISLAND

Hospital News.—Dr. Albert Warren Stearns, Boston, commissioner, Massachusetts Department of Correction, and Dr. Frederic J. Farnell, chairman, state public welfare commission, spoke at the dedication of a new ward for the criminal insane in the state hospital for mental diseases, April 3, in Howard.

Society News.—Dr. James A. McCann addressed the Providence Medical Association, April 6, on "Cases Illustrating the Need of Urological Examination in Obscure Pelvic Symptomatology"; Dr. Frank T. Fulton spoke on "Arterial Hypertension, Optimism versus Pessimism." Dr. William H. Robey, Boston, addressed the association, May 4, on "Cardiology, Old and New."——Dr. Meyer Saklad, Providence, addressed the Rhode Island Ophthalmological and Otological Society, April 9, on "Selective Anesthesia for Head Surgery," and Dr. Robert M. Lord on "Pyelitis in Children in Relation to Tonsillectomy."——Dr. William R. McGuirk, Providence, spoke on "Displacements of the Uterus," at a meeting of the St. Joseph's Hospital Staff Association, April 9, and Dr. Joseph C. O'Connell, Providence, reported a surgical case.——Dr. Emery M. Porter spoke on "Empyema as a Complication of Pneumonia," at a clinicalpathologic conference at the Rhode Island Hospital, Providence, April 14; Drs. Alexander Burgess and Charles F. Gormly reviewed several cases.

SOUTH CAROLINA

State Medical Election.—At the annual meeting of the South Carolina Medical Association, May 5-6, Dr. Charles A. Mobley, Orangeburg, was installed as president; Dr. James R. Young, Anderson, was made president-elect, and Dr. Edgar A. Hines, Seneca, reelected secretary. The next annual session will be held at Columbia.

WASHINGTON

Medical and Dental Library Incorporated.—The Spokane County Medical and Dental societies are the incorporators who recently filed papers for the establishment of a medical and dental library in Olympia. They claim one of the finest collections of medical and dental books in the Northwest. Dr. Robert N. Hamblen is chairman of the committee.

Society News.—James McGavick, city veterinarian, spoke on "Standards of Tacoma Milk Supply in Relation to Tuberculosis" at the meeting of the Pierce County Medical Society, April 14, in Tacoma.——Dr. David T. Ford, Pullman, addressed the Whitman County Medical Society on "Impetigo Contagiosa" at the annual meeting, April 15, in Colfax.——The King County Medical Society, was addressed in Seattle, June 1, by Dr. Treacy H. Duerfeldt, Tacoma, on "Asthma as an Allergic Disease," and Dr. Clarence W. Shannon, Seattle, on "Workmen's Fee Schedules of the United States and Other Countries."

WISCONSIN

Society News.—Dr. Eben J. Carey, Milwaukee, addressed the Douglas County Medical Society, Superior, April 1, on "Clinical Applications of Normal and Abnormal Bone Regeneration in the Healing of Fractures."——Dr. John A. Hurlbut, Madison, addressed the Green Lake-Waushara-Adams County Medical Society, Green Lake, April 17, on sinus disorders.——Drs. Edward A. Meyerding, St. Paul, Minn., and William A. O'Brien, Minneapolis, addressed a joint meeting of the Polk County Medical Society with the editors of the county, April 16, Osceola, on relations of physicians and medical societies to newspapers and on the modern health movement, respectively.——Dr. Frederick H. Falls, Chicago, addressed the Rock County Medical Society, Janesville, April 28, on "The Thyroid Gland and Its Relation to Pregnancy."——At a meeting of the Ninth Councilor District, Stevens Point, April 22, Drs. William J. Bleckwenn and William D. Stovall, Madison, spoke on injuries to the head and the relation of the laboratory to clinical medicine, respectively, and Dr. Harold R. Fehland, Wausau, anemias of adolescence.——Dr. John F. Schneider, Oshkosh, addressed the Outagamie County Medical Society, Appleton, April 23, on obstruction of the urinary tract.——Dr. John W. Harris, Madison, addressed the Chippewa County Medical Society, Chippewa Falls, April 6, on obstetrics.——Speakers at the meeting of the Milwaukee County Medical Society, May 8, were Dr. Louis F. Jermain, on "The High Cost of Medical Service"; W. L. Coffey, manager of Milwaukee county institutions, "Relieving the County Relief," and Michael S. Sheridan, judge of the probate court, Milwaukee County, "Wills and the Administration of Estates in County Courts."——Drs. Henry W. F. Woltman and James R. Learmonth, Rochester, Minn., addressed the Milwaukee Neuro-Psychiatric Society, May 28, on "Tumors of the Conus Medullaris" and "Unusual Causes of Defects in Visual Fields," respectively.——Dr. George F. Suker, Chicago, addressed the Milwaukee Oto-Ophthalmic Society, May 19, on "Vascular Changes in Retinal Lesions."——Dr. Warren H. Cole, St. Louis, addressed the University of Wisconsin Medical Society, May 13, on "Experimental Lesions of the Thyroid," and Dr. Leland S. McKittrick, Boston, May 18, on "Circulatory Disturbances of the Extremities."——Dr. John W. Harris, Madison, spoke on "Recent Advances in Clinical Obstetrics and Gynecology" at the meeting of the Marathon County Medical Society, May 19, in Wausau, and Dr. Walter G. Sexton, Marshfield, "Intravenous Pyelography."

CANADA

Club Awards Prize.—The Scientific Club of Winnipeg has awarded its research prize of $250 to P. A. Macdonald, Ph.D., whose research carried out in the department of physics of the University of Manitoba consisted of studies of the senses of temperature, pain, vision, touch and hearing, with particular reference, in the last three, to the validity of the Weber-Fechner law.

Society News.—Dr. Charles W. Hurlburt, Edmonton, Alta., among others, read a paper on "The Clinical Application of the Electrocardiogram," April 1, before the Edmonton Academy

of Medicine, and Dr. Ardrey W. Downs on the structure and mechanism of the electrocardiograph.——Dr. Earle P. Scarlett addressed the Calgary Medical Society recently on clinical aspects of heart block.

Canadian Medical Association Meeting at Vancouver.—The annual meeting of the Canadian Medical Association will be held at Vancouver, B. C., June 22-26, with headquarters at the Hotel Vancouver. The preliminary program includes as guest speakers Drs. Arno B. Luckhardt, Chicago, on "Physiology and Pathology of the Parathyroids"; William J. Kerr, San Francisco, "Coronary Occlusion"; Douglas Quick, New York, "Irradiation Therapy"; Donald C. Balfour, Rochester, Minn., "Gastric Ulcer and Its Management"; Edward Jackson, Denver, "General Significance of Visual Tests," and Henry F. Helmholz, Rochester, Minn., "Disturbances of the Thyroid Gland in Children." Dr. Edwards A. Park, Baltimore, will deliver the Blackader Oration on "Rickets." Included among the Canadian speakers will be Drs. Alexander R. Munroe, Edmonton, Alta., "Indications for Cholecystic Surgery"; William P. Tew, London, Ont., "Borderline Problems in Obstetrics"; Frank S. Patch, Montreal, "Importance of Urological Examination in Diagnosis of Abdominal Conditions"; Egerton L. Pope, Edmonton, Alta., "Pneumonia Detoxicated"; Alfred T. Bazin, Montreal, "Intestinal Obstruction"; Frederick F. Tisdall, Toronto, "Recent Studies on Nutritional Problems of Childhood"; Israel M. Rabinowitch, Montreal, "Diabetes"; David A. Stewart, Ninette, Manit., "What Is New in Tuberculosis"; Gordon S. Fahrni, Winnipeg, "Rôle of Iodine in Management of Hyperthyroidism"; Emmet A. McCusker, Regina, Sask., "Infections and Obstructions of Upper Respiratory Tract in Their Relation to the Chronic Chest"; Leighton C. Conn, Edmonton, "Clinical Aspects of Disproportion in Obstetrics"; James Miller, Kingston, Ont., "Glomerular Nephritis"; William M. Carr, Victoria, B. C., "Value of X-Ray in Preventive Medicine"; Robin Pearse, Toronto, "Renal Pain, Diagnosis and Treatment," and Robert D. Defries, Toronto, "Epidemiology." An extensive program of entertainment, including golf and drives, has been arranged.

GENERAL

Public Health Association Year Book.—For the first time in the sixty years of the existence of the American Public Health Association, a Year Book has been issued and is now ready for distribution. Its aim is to provide in a single convenient place all of the committee reports presented at the fifty-ninth annual meeting in Fort Worth, Texas, Oct. 27-30, 1930, and the information concerning the organization, activities and membership of the association which its members and others may require.

Four Weeks of Automobile Fatalities.—The U. S. Department of Commerce announces that, during the four weeks ended May 16, eighty-one large cities in the United States reported 864 deaths from automobile accidents, as compared with 614 deaths during the four weeks ended May 17, 1930. Most of these deaths were the result of accidents which occurred within the corporate limits of the city, although some accidents occurred outside the city limits. For fifty-two week periods ended May 16, 1931, and May 17, 1930, the totals for the eighty-one cities were 9,070 and 8,830, respectively, which indicate a recent rate of 26.0 per hundred thousand population as against an earlier rate of 25.8. Two cities reported no deaths from automobile accidents for the last four weeks, while seven cities reported no deaths for the corresponding period of 1930.

Committee to Follow Up Findings of White House Conference.—The appointment of a committee to follow up the findings of the medical service section of the White House Conference on Child Health and Protection was announced, May 20, by Secretary Ray Lyman Wilbur. The purpose of the newly appointed committee, of which Dr. Wilbur is honorary chairman, will be to organize the material compiled by the medical service section. This information will be distributed to those organizations throughout the country that are striving to improve the health of its children. The committee is composed of Dr. Samuel McC. Hamill, Philadelphia, chairman; Dr. Fred L. Adair, Chicago; Dr. Kenneth D. Blackfan, Boston; Ida M. Cannon, R. N., Boston; Dr. Anton J. Carlson, Chicago; Dr. Samuel J. Crumbine, New York; Dr. Clifford G. Grulee, Chicago; Dr. Henry F. Helmholz, Rochester, Minn.; F. J. Kelly, Ph.D., Washington, D. C.; Dr. Fred Moore, Des Moines, Iowa; Sophie C. Nelson, R.N.; Dr. John O. Polak, Brooklyn; Richard E. Scammon, Ph.D., Minneapolis; Dr. Wingate Todd, Cleveland; Dr. Philip Van Ingen, New York; Dr. Borden S. Veeder, St. Louis, and Henry F. Vaughan, D.P.H., Detroit.

Society News.—At the annual meeting of the Association of American Physicians, May 6, Dr. Thomas B. Futcher, Baltimore, was elected president; Dr. G. Canby Robinson, New York, vice president, and Dr. James H. Means, Boston, secretary. The next annual session will be held at Atlantic City, May 3-4, 1932.——Dr. Thomas M. Rivers, New York, was elected president of the American Society for Clinical Investigation at its annual meeting, May 4, and Dr. Cyrus C. Sturgis, Ann Arbor, Mich., secretary. The next annual session will be held at Atlantic City, May 2, 1932.——The eighty-eighth annual meeting of the American Association for the Advancement of Science will be held in Pasadena and Los Angeles, June 15-20. Section N (medical sciences) will attend the symposium on high voltage x-ray tubes arranged by the American Physical Society in cooperation with Section B, June 18. Friday and Saturday, there will be discussions of the medical and biologic possibilities of the rays from these tubes.——The American Heart Association will hold its seventh annual meeting, June 9, in Philadelphia. Speakers will include Drs. Fred M. Smith, Iowa City; Alfred Friedlander, Cincinnati; Drew W. Luten, St. Louis; Stewart R. Roberts, Atlanta, Ga.; Gordon E. Hein, San Francisco; John H. Musser, New Orleans, David Riesman, Philadelphia; Joseph T. Wearn, Cleveland; James B. Herrick, Chicago; Paul D. White, Boston, and Emanuel Libman, New York.

Morbidity Reporting Area.—A national plan for the establishment of morbidity reporting areas was adopted, April 28, by the Conference of State and Territorial Health Officers at Washington, D. C., as a means of stimulating cooperation between state and local health agencies and the U. S. Public Health Service in the reporting of health statistics by local areas to the government service. The plan provides for a national honor roll of states which each year have submitted disease reports above the average and which are included in the morbidity zone defined in the plan. The requirements are (1) inclusion in the registration areas for deaths and births; (2) adequate legislation to enforce reporting; (3) machinery for securing reports and keeping records; (4) a clerical force sufficient to do the work required, and (5) a willingness to cooperate in efforts to secure more nearly accurate and more nearly complete reports of morbidity. It is proposed that all states that qualify be admitted tentatively. If the needed data cannot be supplied regularly and with reasonable promptness, such states will not be included in the area as finally determined. It is reported that the establishment of the morbidity reporting area will not supersede the reports now received and published by the U. S. Public Health Service from all the states, the District of Columbia, Porto Rico, Hawaii, Alaska and the Philippine Islands, but it is hoped that the reports sent out by the service may be made more valuable to the health officers.

LATIN AMERICA

Personal.—Dr. Raymundo Chaves de Freitas has been appointed chief ophthalmologist, a newly created position in the national department of public health, Brazil. His duties will include the preparation of plans for a national campaign against trachoma.

Society News.—The First National Congress of Social Service for Childhood will be held at Buenos Aires, September 20-26, under the auspices of the White Cross, a section of the National Council of Women. Its aim is to study the moral, economic and medicolegal problems of both the mother and the child in Argentina. Further information may be had from the headquarters of the congress, Cruz Blanca, Chargas 1155, Buenos Aires, Argentina. Drs. G. Araoz Alfaro and Germinal Rodriguez are the president and secretary, respectively, of the executive committee.

CORRECTION

Transfusion in Hypertension.—In Queries and Minor Notes, THE JOURNAL, May 9, page 1642, the statement was made that Dr. Herman O. Mosenthal had advised repeated autotransfusions in hypertension. Dr. Mosenthal writes that he has not advocated transfusions for high blood pressure. Furthermore, he believes that transfusions of blood in cases of essential hypertension would be contraindicated, as many of these patients have a tendency to a higher red blood cell count than the average normal person. Some years ago, Dr. Mosenthal read a paper about the transfusion of blood in chronic interstitial nephritis in which he said that transfusions of blood would not increase the blood pressure in hypertensive persons and that its only value in chronic interstitial nephritis was the symptomatic alleviation of the secondary anemia.

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Foreign Letters

LONDON

(From Our Regular Correspondent)

May 9, 1931.

The Passing of "Status Lymphaticus"

Many unexpained deaths in persons in good health from trivial causes, during an operation or under an anesthetic, have been ascribed to "status lymphaticus" which is described as due to a hypertrophy of the lymphoid tissue of the body generally with enlargement of the thymus. A committee, appointed by the Medical Research Council and the Pathological Society of Great Britain and Ireland to investigate the subject, has presented its report. An elaborate investigation, embodied in a series of fifteen tables, establishes the average weight of the normal thymus and the average percentage of thymic weight to body weight at different ages. No evidence was found that acute diseases of short duration reduce the average weight appreciably. An abnormally large thymus in itself is not indicative of status thymicolymphaticus when no obvious cause of death is found post mortem (as has been supposed). Out of twenty cases in which an abnormally large thymus was found, in only four, in which death was attributed to anesthesia or shock, could any special liability to death be assumed to have existed or the cause of death be regarded as adequately explained. It is held impossible to judge the adequacy of anesthetics or shock as causes of death, because their effects cannot be measured in the dead body. In a normal series of children up to 16 years there was little, if any, association between the weight of the thymus and the amount of lymphoid tissue in the various parts of the body. There was no evidence of concomitant general lymphoid hyperplasia in cases of large thymus, nor could any significance be attached to the amounts of lymphoid tissue in the various parts of the body. The final conclusion is that there is no evidence for the existence of the so-called status lymphaticus. It follows that a few persons, especially children, die when no cause can be found to show why they should. If there is an inherent constitutional element that makes administration of an anesthetic dangerous, it does not lie in the state of the thymus and lymphatic glands.

The Liver Treatment of Disseminated Sclerosis

An important extension of liver treatment to a disease heretofore intractable appears to have been accomplished at the Royal Infirmary, Edinburgh. Two physicians of the infirmary, Dr. Alexander Goodall and Dr. J. K. Slater, have reported in the *British Medical Journal* five consecutive cases of disseminated sclerosis in which remarkable improvement took place from administration of half a pound daily of lightly cooked liver. Two patients, previously disabled, returned to work, one as a mechanic, the other as a farm hand. One man unable to stand now walks briskly. It is claimed that this improvement is more than can be explained by the natural remissions of the disease, which, moreover, are unusual in the colder months of the year, when some of the patients were treated. Also these physicians have had later experience of other cases, too early for publication, which confirm their conclusion. The remarkable improvement of the symptoms of combined degeneration of the cord associated with pernicious anemia under liver treatment led them to try it in disseminated sclerosis. The degeneration is believed to be the result of some deficiency, hormone or vitamin, and possibly disseminated sclerosis is due to a similar cause.

The Measurement of Noise

In a previous letter attention was called to the injurious effect of the noises of modern civilization, particularly those due to automobile horns. At the Royal Institution Dr. G. W. C. Kaye, superintendent of the physics department, National Physical Laboratory, who lectured on the measurement of noise, said that the conclusions of the New York Noise Abatement Commission supported medical testimony in this country that, while most persons, particularly the hale and hearty, could accustom themselves to living or working in a noisy environment, in general noise had a harmful effect. The evil was increased in the case of mental workers, young children, the nervous, the fatigued and the sick. Noise was measured by the decibel, a simple ratio or logarithmic unit, the adoption of which hinged on the fact that while loudness increased in arithmetical ratio, the energy producing it increased in geometric ratio. The complete range of auditory loudness from the softest sound to one so loud that it pained the ear was covered by about 130 decibels. Although the measurement of noise was of some complexity, being bound up with physiology and psychology, the physics of acoustic measurement had made great strides, owing to electrical methods based on the electrotonic wave. By these, noises could be analyzed into spectrums, showing their frequency components, and their loudness could be measured physically by the microphone. A convenient "noise thermometer" ranged from 0 to 100 decibels. New York traffic noises appeared to be about 10 decibels louder than those of London.

Devices of Scientific Air Pollution

The Department of Scientific and Industrial Research, which is responsible for the investigation of atmospheric pollution, has exhibited at its conference with the local authorities, who collaborate with it, some new devices for measuring air pollution. The apparatus commonly used is the standard deposit gage. Material deposited from the air into the funnel of the gage is washed by rain into a bottle beneath, and at the end of every month the contents are analyzed. The method gives some idea of the amount of sulphuric acid, the most destructive element of air pollution, but it does not provide an estimate from day to day. This can now be gained from an apparatus developed by the government chemist, which will be used to determine whether a great new power station in course of erection in London is emiting sulphur fumes. The air to be examined is pumped through a glass tube containing a chemical that absorbs sulphur dioxide and fixes it as sulphuric acid. Several local authorities have adopted an automatic air filter devised by Dr. J. S. Owns, the superintendent of observations, to measure the amount of suspended impurity in the air. A standard volume of air is passed through filter paper, forming on it a dark spot of varying blackness according to the amount of impurity. By a clockwork arrangement, records corresponding to each hour of the day are obtained; the degree of blackness of each series of spots is afterward measured by comparison with a standardized scale of shades numbered from 1 to 20.

Another new apparatus is for measuring daylight. The light passes through an optical wedge, in contact with which is a metal plate perforated with small holes in a line. The light transmitted through these holes varies in intensity from one end of the line to the other. By means of a split lens, two images of the holes are formed on photographic paper, and by light filters the radiation forming one image is confined to the ultraviolet region, the radiation forming the other to a portion of the visible spectrum. The photographic record for the day, therefore, consists of two parallel rows of dots, each diminishing in shade along the row. By noting the last hole visible in each line, an arbitrary measure of the relative average intensity of the two kinds of radiation is obtained and the variations in the total amount of daylight from day to day can be estimated. Seven such records can be taken, one for each day of the week, before the sheet of photographic paper is changed and the clockwork rewound.

Sir Byrom Bramwell Is Dead

Sir Byrom Bramwell, F.R.C.P., consulting physician to the Edinburgh Royal Infirmary and later president of the Royal College of Physicians, Edinburgh, has died in his eighty-fourth

year. Born in North Shields, where his father and grandfather had been physicians, he studied medicine at the University of Edinburgh and after a distinguished career graduated M.B. with honors in 1869. For a time he assisted his father, but he had always had the ambition to become a teacher and in 1871 was appointed lecturer on medical jurisprudence and pathology in the University of Durham and in 1874 pathologist and physician to the Royal Infirmary, Newcastle. But in 1879, in pursuit of an earlier ambition—to teach and practice in Edinburgh—he returned to that city. Almost at once he established a reputation as a great teacher. He introduced a new idea by starting a class on medical diagnosis in the extra-academic school and attracted large audiences. In 1882 he was appointed pathologist to the Royal Infirmary and in 1885 assistant physician. A prolific writer, he was clear and concise, but was at his best as a clinical demonstrator, where his wide knowledge and instinct for essentials made him an ideal teacher. His textbook on Diseases of the Spinal Cord, illustrated by his own sections and drawings, grew out of his lectures and achieved wide popularity. It was a lucid exposition of what was then a comparatively new and difficult field. It was translated into German, French and Italian, and several editions appeared in America. But though neurology was his favorite subject he by no means confined himself to it. His "Diseases of the Heart and Aorta," published in 1884, was full of original illustrations, pathologic and clinical, and achieved great success. Another successful work was "An Introduction to Practical Medicine and Medical Diagnosis," which appeared in 1887. Intracranial Tumors," published in the following year, is still a medical classic. Speaking of this work in his 1930 Lister Memorial Lecture, Dr. Harvey Cushing remarked: "It has been said that if some unusual clinical condition turns up concerning which one seeks information, an account of it is likely to be found in Jonathan Hutchinson's 'Archives of Surgery.' To this I would like to add, particularly for the benefit of neurologists, that if Hutchinson fails them, try Byrom Bramwell." Following the example set by Hutchinson's "Archives," Bramwell published from 1903 to 1910 a journal written entirely by himself. Its title was "Clinical Studies, a Quarterly Journal of Clinical Medicine." The subjects embraced all the departments of clinical medicine, and the essential aim was to be practical. It consisted of clinical lectures, reports of his clinics and of other cases, and articles on clinical subjects, and it was extensively illustrated. The reports of the clinics often took the form of a dialogue with his students—a method seldom followed and possible only for teachers of the first rank. He published in three large volumes an "Atlas of Clinical Medicine," containing many colored plates prepared under his supervision. His "Lectures on Aphasia" appeared in 1897. They were based on his own cases and did much to elucidate a difficult subject. In 1899 he published a valuable work on "Anaemia and Diseases of the Blood."

It was as a great clinician and great teacher, by both the spoken and the written word, that his reputation became world-wide, rather than by any original observations. But it may be recalled that in 1875 he introduced the arsenical treatment of pernicious anemia and in 1902 he was the first to describe infantilism due to pancreatic defect. He belonged to a period of great clinicians who depended much on their experience and powers of observation, when the laboratory had not taken such an important place in medicine as it now has. Of his period Hutchinson was the greatest clinician. But Hutchinson was by his originality one of the great clinicians of all time and was never equaled in the versatility with which he worked at so many special branches or in the number of important observations on all sorts of rare conditions with which he enriched both medicine and surgery. Moreover, like John Hunter, he was a biologist in the wide sense and was ever looking at medical problems from this standpoint. In the present age of specialism this attitude unfortunately has almost vanished.

PARIS

(From Our Regular Correspondent)

April 22, 1931.

Discussion on the Obligation to Use Antitetanic Serum

The imposition of a penalty on a physician for his alleged culpability, in the death of a man injured in a factory, for not giving antitetanic serum immediately after the injury, has caused considerable stir in the profession. Any wound, however slight, may give rise to tetanus, and yet injections of antitetanic serum are not invariably given after minimal injuries. All physicians are thus exposed every day to a similar sentence. An interesting discussion developed recently at a meeting of the Academy of Medicine, following the report of the committee appointed by the academy to study the question. The chairman of the committee was Dr. Roux, and Professor Gosset was the spokesman. The committee did not assume to lay down inviolable rules for the physicians. Nevertheless, it felt that the expression of an opinion was not out of place. The preventive injection of antitetanic serum has certain disadvantages, which are not essentially different from those of any form of serotherapy; but the disadvantages, Roux emphasized, should not be exaggerated. Untoward nervous reactions have never been observed in persons who have been bitten, who, at the Institut Pasteur, receive, as a routine measure, an injection of antitetanic serum along with the antirabic serum. On the other hand, there are many cases that do not seem to require the use of serum. Of 150,000 workmen engaged in smelting and other metallurgic processes, in northern France, who have been injured during their employment, as was the man who gave rise to the lawsuit in question, and who were not treated with antitetanic serum, only seven have died from tetanus. In a large factory of the Paris area—in which some 20,000 accidents occur each year, tetanus is unknown. It makes its ravages more particularly in the agricultural sections, since the spore of tetanus lives in the ground, from which it enters the bodies of Herbivora, who pass it back in multiplied form to the soil. The committee expressed the opinion that injection of antitetanic serum is necessary whenever a deep wound contaminated by soil, manure or any débris is involved. Lavage and disinfection of the wound should be carried out first. Especial care should be given to wounds of the feet, hands and face. A prick of a rose-bush thorn may cause tetanus. The injection of the Ramon anatoxin as it is prepared now by the Institut Pasteur causes, moreover, no untoward reaction. This discussion was necessary in order to supply the physicians with the means of defense in case they should be summoned before the courts on similar charges.

The Properties of Radon

Radon, or the emanation of radium, has certain therapeutic applications concerning which Professor Rathery and M. Molinéry have made a careful study, the results of which they presented recently before the Academy of Sciences. It produces interesting modifications of the general metabolism and, in particular, lowers the development of uric acid. Its effects are very marked in chronic rheumatism and gout, which supports the belief that it causes a stimulation of certain functions of the liver. This would explain, they think, the effects of thermal springs in these pathologic states—effects that have been known empirically for many centuries and that may be associated with radioactive emanations. The same effect has been secured, away from the springs, by inhalations of radon.

Seventh National Congress on Tuberculosis

The seventh Congrès national de la tuberculose was held at Bordeaux, from March 30 to April 2, under the chairmanship of M. Blaisot, minister of public health, after the presentation of an address by Dean Sigalas, in which he outlined the present status of the problem of tuberculosis and concluded with the

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aphorism of Franklin "Public health is true public wealth." On the first topic, Bacteriolysis of the Tubercle Bacillus, papers were presented by Bezançon and Philibert and by Buc and Paraf. Paul Courmont and Gardère discussed the bactericidal properties of blood serum, using as microbic agents homogenous cultures developed by Arloing and Courmont. The bactericidal properties of blood serum play also a rôle in the defense of the organism attacked by active tuberculosis. In the opinion of the speakers, their research goes to show that there is no bacteriolytic potency in the exudates. That their results differ from those of other investigators they think is due to the difficulties associated with the technic of cultivation. The next topic on the program was the study of the clinical question of pneumothorax and the possibilities of making such treatment available to tuberculous patients of limited means—in the hospitals, sanatoriums and dispensaries. The essayists—Kuss, Secousse and Piéchaud—expressed the opinion that it is easily possible to establish and to supervise pneumothorax in the dispensaries, and demanded the universal application of the Honnorat law; likewise the creation of combination hospitals and sanatoriums destined to assure a wider application of pneumothorax for persons without sufficient funds. The prophylaxis of tuberculosis in the army was taken up by Commandant Le Bourdelles, of the army medical corps. Professor Rieux, of Val-de-Grâce, reported the results of the clinical and radiologic examination of 400 prospective recruits for the army. Prof. Léon Bernard, who presided at the closing session, referred to the increasing interest that is being taken in the national congresses on tuberculosis. The next congress will be held at Rabat, the capital of Morocco, Africa, in 1935.

Results in Cerebral Surgery

At a recent session of the Société nationale de chirurgie, de Martel, J. Guillaume and M. Lassery reported the results secured by them in neurosurgery during the past year. In 130 cerebral operations there were thirty-four deaths, a mortality of 26 per cent. The most serious operations were the cerebellar explorations in which no tumors were found; however, in these the authors found in five instances tumors of the aqueduct. In these cases the mortality rose to 48 per cent, whereas it was 6.6 per cent in the operations involving the optic chiasma. The authors presented six patients operated on for tumors of the optic chiasma. Two of these, who had been almost completely blind, recovered their normal sight within a few days. The four other patients are much improved. De Martel emphasized the benign nature of these interventions when they are carried out by the intradural route, and the difficulty of cicatrization if the patients have been previously treated with roentgen rays.

A Movement to Protect the Rights of Inventors

Under the influence of M. Lucien Klotz, a lawyer, a movement has been launched to induce parliament to modify the law so as to give to inventors and scientists the right to demand the payment of royalties for the exploitation of their discoveries, as is already the case with respect to works of art, for which the original artist is entitled to a small commission whenever through sale they pass from one person to another. The Academy of Medicine, during a recent session, permitted Mr. Klotz to present his views on the subject, which awakened great interest. For the past ten years the subject has been carefully studied, and a commission, over which Mr. Appell, who is now dean of the Faculté des sciences, presided, prepared a bill to be presented to parliament. There is a sharp contrast between the poverty of workers who devote their lives to research in pure science, as compared with the prosperity of industrialists and companies that exploit their discoveries, when they have been published in a scientific review. This is entirely distinct from the existing legislation pertaining to patents and to copyrights. Branly, a French scientist whose preliminary studies prepared the way for the discovery of wireless telegraphy, is ending his days in poverty. No manufacturers of wireless apparatus, anywhere in the world, have conceived the idea of granting him a small royalty on the equipment that his intelligence and zeal in research have made possible. In addition to this example, many others might be cited. Not long ago, Professor Langevin roused the public by calling attention to the fact that some of the most valuable discoveries would not have been made if certain researchers had not been willing to work for the love of pure science, without other compensation than the joy of being able to understand the secrets of nature and to dominate them by the exercise of human intelligence. Rewards in the form of temporal benefits would remove from them the temptation of entering into competitive industry, and they would be retained in the more quiet and serene atmosphere of the laboratory. The proposal of Mr. Klotz involves the idea of recognizing their property rights from the day they publish their discovery or theoretical invention. The only precondition would be the endorsement of the superior council of scientific research. The author would thus be in a position to demand the payment of a small percentage of the industrial profits resulting from the application of his ideas. Mr. Klotz does not fail to realize that the delicate point in the situation is the collective or cumulative character of scientific work as against the individual or personal character of works of art. But he does not think that the investigation of theoretical filiation or dependency and of priority would be an insurmountable task. Mr. Klotz was warmly commended for his address by the president, M. de Lapersonne, and a committee was immediately appointed to study his proposals. The committee comprises Mme. Curie, and Messieurs d'Arsonval, L. Bernard, Bezançon, Henriot and Sergent.

Death of Maurice de Fleury

The death of Dr. Maurice de Fleury, at the age of 71, is announced. The son of a university professor in Bordeaux, de Fleury carried on his medical studies in Paris, where he associated himself with the Charcot school, in the center that was represented at that time by the Hôpital de la Salpêtrière. He devoted himself to what he termed the "médecine de l'esprit" and published numerous works in this field: "Introduction à la médecine de l'esprit," "Les états dépressifs," "Le corps et l'âme de l'enfant," "La neurasthénie," "l'Angoisse humaine," and others. These works bore more of a popular character. He published over a period of thirty years excellent articles in the *Figaro*, written in a lively style, under the pseudonym of Horace Bianchon, a character in one of Balzac's novels. He was popular among the romanticists and gens de lettres with a psychologic trend. He was one of our best medical journalists. Twenty years ago, he was enrolled by the Academy of Medicine among its *membres libres*.

Medical Exhibits at the Colonial Exposition

The pavilions of the French colonies, at the Colonial Exposition that is to open in Paris, May 5, will show the methods employed by the colonies in combating tropical diseases. Each colony will have a special booth for the exhibit of the sanitary service and the hygienic service. Visitors will be able to get an accurate idea of the wonderful system of medical aid, the increasing significance of the personnel and the large appropriations devoted in the official budgets to the construction of hospitals, to sanitary crews, maternities, laboratories, homes for the aged, psychopathic hospitals, and to the organization of the large special services—especially in Cameroons and in French Equatorial Africa—to combat the ravages of trypanosomiasis. In order that the full measure of instruction may be derived from the exhibit, a medical convention will be held in July, 1931, for the benefit of physicians and scientists who are especially interested in the study of tropical diseases, not only in France but also in other countries. The exposition will thus be organized so as to be of interest to the medical profession throughout the world.

ITALY

(From Our Regular Correspondent)

March 15, 1931.

Lectures at the University of Bari

The rector of the University of Bari, Professor Mariani, organized recently a series of scientific lectures that were attended by all the professors of the Facoltà di medicina and by many physicians and students.

Prof. S. Maggiore discussed "Alcoholism in Children," making known the results of an inquiry conducted in the elementary schools of Bari, and illustrating the effects produced respectively by occasional, continual or immoderate doses of wine. According to the speaker, alcoholism (especially in children) must be regarded as a constitutional anomaly of the nervous system, in direct relation with the influence of the environment, morally and physically unsound. The crusade against alcoholism must be based on education and persuasion. Education is particularly useful in adolescence and should be based on recreational activities and a diffusion of the love of sports.

Professor Sanfelice took as his subject "Hygiene and Psyche," emphasizing the idea that a knowledge of his relations to women is an indispensable element in the education of a man, and should be recognized within the walls of children's institutions. In the elementary and middle schools, the instruction and training of the children should be entrusted to competent teachers who, before beginning their life work, have pursued special courses in hygiene. In the middle schools, the speaker felt the need of imparting sound ideas on sexual hygiene, in order to prevent the grave damage that may result to individuals and to society from ignorance on sexual matters. The speaker considered the problem of the hygiene of life in relation to the poorer classes and took up in order the various factors involved: alimentation, habitation, clothing, work. In closing, Sanfelice treated the problems of infectious diseases, considering particularly tuberculosis, typhoid infection and the disorders of metabolism.

Professor Baldoni delivered an address on "Cerebral Poisons." After mentioning the many substances capable of damaging the brain and its higher functions, the speaker considered more particularly opium and its most important active principle, morphine, substances that are most excellent remedies in the hands of conscientious physicians although they are poisons in the hands of the imprudent and the degenerate. These substances act on the cerebral nerve centers, inducing paralysis of the inhibitory centers and abolition of the perception of physical and moral pain.

Professor Marassini dealt with the topic "The Crusade Against Malaria and Its Social and Economic Importance." After speaking of malarial infection in general and of its origin, he referred to the regions of Italy chiefly affected and the effects on society that the disease has produced. He considered then the principal means of defense against malarial infection, referring to the need of a systematic use of all methods to combat insalubrious conditions. He spoke of anophelism in relation to the more recent observations and emphasized the importance of the disappearance of malaria from the rice fields as a result of the measures adopted, although the rice fields are the most favorable areas for the development of anopheles, which, as is well known, are the chief transmitters of the infection.

Professor Galdi spoke on "The Foundations of the Anti-tuberculosis Crusade as a Function of the Central Government." According to the speaker, the crusade against tuberculosis constitutes a part of demography and should be considered a prerogative and an obligation of the central government. The crusade presupposes a profound knowledge of the disease and of the reactions that the human organism opposes to it. Galdi recalled that the conception of tuberculous contact was first affirmed by Fra Castroro and was demonstrated by Morgagni, while Maffucci and Mocaglia demonstrated the existence of tuberculous toxins and analyzed the question of hereditary immunity as against hereditary predisposition.

Professor Riquier discussed "Psychiatric Aid: Hygiene and Mental Prophylaxis," recalling the evolution of the diagnostic and therapeutic conception of mental disease. Whereas, in the sixteenth century, the principle of sequestration and of chains still prevailed, in the eighteenth century, chiefly through the merit of Vincenzo Chiarugi, the systematic study of mental patients, on the basis of medical and humane criteria, was begun. The speaker divided mental disorders, according to their etiology, into endogenic (hereditary) and exogenic, recalling that such causes are often confused. He spoke also on welfare aid to mental patients and described the recent developments in Italy. He admitted that, for economic reasons, such aid has not been all that it should be. He pointed out that in the past fifty years 64,000 cases of mental disease had been diagnosed, and the trend is still upward. With regard to mental prophylaxis, recent legislation in Italy, with its consideration of the norms of mental hygiene of the child and the workman, constitutes a new and more rational development than the mechanization of taylorism.

Professor Maggiore delivered an address on the social crusade against trachoma. The speaker showed the incidence of trachoma in countries of Europe, including Italy, where it is greatest in Sardinia, Sicily and the southern portion in general. In 1926, 14 per thousand of the army recruits for that year were trachomatous. In the schools, in 1927, 0.125 per cent were trachomatous. In the eye ambulatoriums of Italy, about 70 per cent of the patients were trachomatous. The speaker then described the results accomplished by the antitrachoma crusade, through the work of the public health service, the Ente nazionale per il tracoma and the Cassa per le assicurazioni sociali. He explained what had been done in the province of Bari, where, among the various organizations promoting prophylaxis, great value attached to the courses on the diagnosis, treatment and prophylaxis of trachoma, as given by the health officers and by the instructors in the elementary schools.

Vivisection and the Needs of Science

The senate discussed recently the proposed law that would change the existing regulations pertaining to vivisection performed for scientific purposes on warm-blooded animals. Many senators who are biologists took part in the discussion, among others, Professor Marchiafava.

Professor Pestalozza remarked that neither the attempted control of the work of the medical investigator nor the intervention in the matter by the Società zoofile was particularly pleasing. However, in order to satisfy public opinion it might be well to accept the control of the provincial physician, he being delegated to judge whether experiments on animals are carried out without unnecessary infliction of pain. He approved the idea of extending to third-year medical students the right to perform vivisections and suggested that the privilege might well be accorded to third-year students of veterinary science and the natural sciences.

Professor Durante stated that no progress would have been made in the biologic sciences if, from 1200 on, the dissection of the human cadaver had not been permitted. He thought the societies for the prevention of cruelty to animals were useful but did not think that they should intervene in the laboratories. Vivisection could not be restricted without damage to the most useful form of research for humanity.

Prof. Aldo Castellani observed that the law as drafted permits vivisection only for didactic purposes or for the advancement of physiology or therapy. He thought that it should be added that vivisection is permitted also for diagnostic purposes. To protect the lower animals is praiseworthy but to abolish vivisection would constitute a step backward for science. Professor Maragliano considered that the control and supervision of vivisection should be exercised by academic bodies. According to

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Professor Versari, anatomist of the University of Rome, the judgment on the need and the form of an experiment should be reserved to the directors of the biologic laboratories.

Congress on Tuberculosis

The Federazione italiana per la lotta contro la tubercolosi announces its fourth national congress to be held at Bologna. The main topics on the program are: (1) Rural Environment and Tuberculosis in Italy, presented by Professor Ottolenghi, of the University of Rome; (2) Bilateral Pneumothorax, by Prof. Maurizio Ascoli; (3) The Onset of Tuberculosis in the Adult, by Professors Boeri, Pepere and Busi, and (4) Post-sanatorial Aid, by Professor Morelli. In connection with this congress, meetings will be held of the Società di studi scientifici sulla tubercolosi and of the Società dei medici di sanatorii e dispensari. There will likewise be a session of the Convegno nazionale delle assistenti sanitarie, at which the following two topics will be discussed: (1) Sanitary Aid in the Crusade Against Tuberculosis in Collaboration with the Health Officer, and (2) Education of the People in Antituberculosis Prophylaxis by Means of the Sanitary Aid Service.

The Medical Academy of Rome

The Accademia medica di Roma met recently under the chairmanship of Prof. Silvestro Baglioni, physiologist at the university. Dr. Bentivoglio spoke on the action of ultraviolet rays on the antitoxic value of antidiphtheritic serums. Irradiating with varying doses thirty-one serums—some fresh, and some that had stood; some entire and some that were diluted—the speaker reached the conclusion that quartz light has slight influence, if any, on the antitoxic value of antidiphtheritic serums, except serums with a high percentage of immunizing units, in which a partial destruction of the antitoxic units takes place.

Dr. Penso recounted the results of his observations made on a recent study tour of Africa. He described the organization of the clinics and the hospitals, which he found provided with laboratories and all modern means of scientific research.

Professors Meldolesi and De Orchi reported the results of their research on the action of pancreatic extracts (insulin) on arterial pressure. In the normal person, insulin causes a transitory diminution of arterial pressure; in the person with high blood pressure, the hypotensive action varies with the clinical cases and the various types of hypertension. It is marked and persistent in the hypertensions of the climacteric, moderate in nephritic patients, virtually nil in the arteriosclerotic types and in essential hypertonia. In angina pectoris, during the course of insulin treatment they observed nearly always less frequent pain attacks, though no parallel improvement in the status of the circulation was noted.

Professors Meldolesi and Pons reported their observations on the action of digitalis in cardiopathies by means of examination of the oxygen in the blood. The action varied according as a large or small dose was administered. Small doses provoke always an acceleration of the peripheral circulation, with consequent greater utilization of the oxygen. The heavy doses of digitalis caused a retardation of the peripheral circulation, with diminution or even disappearance of the arterial deficit of oxygen. This action is explained chiefly by the intervention of electrocardiographic phenomena (inversion of the T and other deflections) that are commonly given as characteristic of the full dose, and is exactly controllable by means of an examination of the oxygen of the blood.

Castellani Appointed Professor at Rome

By a recent decree, a professorial chair in the clinical aspects of tropical and subtropical diseases was established at the University of Rome. The occupant of the chair will have the privilege of residing every year a sufficient length of time in foreign countries to make the necessary studies on the ground. Prof. Aldo Castellani, senator, is the first appointee.

RIO DE JANEIRO

(From Our Regular Correspondent)

April 15, 1931.

Gallbladder Giardiasis

Dr. C. Mathias, assistant physician in the hospital Santa Casa of São Paulo, who has performed about 550 duodenal intubations during the last three years, found giardiasis in 22 cases, or about 4 per cent. In 16 patients of this group, the parasites were found both in the duodenum and in the gallbladder; in the remaining 6 patients the infestation was localized in the gallbladder alone. In 13 patients of the first subgroup (of 16 patients) giardiasis complicated a lithiasic or inflammatory process of the gallbladder, as proved by the clinical examination, cholecystography and the Meltzer-Lyon test. In these cases the symptoms of giardiasis were overshadowed by those of inflammation and lithiasis. In the 3 remaining cases of this subgroup there were symptoms of gastro-intestinal dyspepsia characterized by fulness of the epigastrium and right hypochondrium, alternating attacks of diarrhea and constipation, coated tongue, lack of appetite and slight thinness. A large number of adult motile parasites were found in the duodenal fluid of these patients by duodenal intubation. In 14 cases of the first subgroup (of 16 patients) laboratory tests were made in search of parasites in the feces: the test gave negative results. The patients of the second subgroup (6 patients with giardiasis in the gallbladder alone) had symptoms indicating the presence of a chronic process of inflammation of the gallbladder, such as a dull pain at the level of the gallbladder, slightly positive Murphy and Abraham signs, repercussion of the vesicular pain manifested by a slight pain at the dorsolumbar region, slight fronto-orbital headache, constipation, lack of appetite and thinness. On examination of the feces in search of parasites in these 6 cases, only in 1 a scanty number were discovered, while the bile obtained by the Meltzer-Lyon test from all 6 patients showed the presence of a large number. The differential diagnosis of vesicular giardiasis against chronic catarrhal cholecystitis or gastro-intestinal simple dyspepsia is difficult because of the similarity of symptoms. Clinical and roentgen examinations of the patient as well as the laboratory tests on the feces in search of parasites did not help to make a clear diagnosis. The presence of *Giardia* in the feces may suggest intestinal lambliasis but it does not render data of certainty on the diagnosis of vesicular lambliasis which is causing the predominant symptoms. The only sources of definite data diagnostic of duodenal and vesicular giardiasis are duodenal intubation and the Meltzer-Lyon test. Eight patients of the first subgroup of 16 patients received as a treatment 0.50 Gm. daily of acetarsone by mouth. In 6, parasites in the duodenal and vesicular fluids disappeared after the treatment had been given for fifteen days. Two patients of the second subgroup (of 6 patients) received the same treatment. When duodenal intubation and the Meltzer-Lyon test were made on these patients after twenty days and three months, respectively, of having received the treatment, only a scanty number of unmotile parasites were found. In patients with vesicular giardiasis the drainage of the gallbladder in association with the administration of antiparasitic drugs gives excellent results by avoiding the propagation of the infestation and by abbreviating the duration of the disease.

Heart Block

Dr. Pires Salgado, chief of the clinic of Santa Casa de Misericordia of Rio de Janeiro, in an article recently published on heart block presented the following conclusions: Sino-auricular block is a syndrome that indicates only certain forms of blocking. The conception of that clinical condition should be amplified so as to include certain variations of the sinusal rhythm due to a deficiency of the sino-auricular node. The physiopathologic mechanism for these variations is the same as that which causes sino-auricular block, both conditions

originating in the vagal autonomic system and rarely caused by an organic process. Once an abnormality of the sinusal rhythm has been discovered it should be referred to as sino-auricular block of this or that type, such as respiratory arrhythmia, nodal rhythm, ventricular autonomous rhythm, periodic variations of the cardiac rhythm, paradoxical pulse, sinusal bradycardia and total cardiac intermittence.

Pressure of Cerebrospinal Fluid in Epileptic Patients

Dr. Adauto Botelho, chief of the Clinica Psychiatrica Faculty of Medicine, University of Rio de Janeiro, in a lecture recently delivered on the variations of pressure of cerebrospinal fluid in epileptic patients reached the following conclusions: In a few epileptic patients, hypertension of the cerebrospinal fluid is present during the periods outside the crisis; that is, when they have not the actual attack, as has been proved by lumbar puncture. Still fewer are epileptic patients who during the same period have hypotension of the cerebrospinal fluid, as proved by suboccipital puncture. During this period the tension of the cerebrospinal fluid of these patients as a rule is within normal limits. During the periods that immediately precede the attack it is a frequent observation to find hypertension of the cerebrospinal fluid. The tension of the cerebrospinal fluid in epileptic patients is subject to many variations. During the attacks there is hypertension of the cerebrospinal fluid. In epileptic patients the compression of the jugular vein causes an increase of the pressure of the cerebrospinal fluid. This fact is also observed after the withdrawal of cerebrospinal fluid, both in epileptic and in normal persons. By compressing the jugular vein the pressure of the cerebrospinal fluid increases two, four, six, eight or even more times than it was before compression. The artificial tension in epileptic patients during the intervals between the attacks has no relation to the tension of the cerebrospinal fluid.

Two Diseases of Parrots

Dr. J. R. Meyer recently delivered a lecture before the Sociedade de Biologia of São Paulo on the characteristics of two recently discovered diseases of parrots which were observed in collaboration with Dr. J. Pachecho in the Instituto Biologico of São Paulo during the last epidemic in Brazil. As etiologic agents of these two diseases it was found that one is caused by a bacteria while the other is caused by a filtrable virus. The former is characterized by a special microscopic picture with inflammatory processes of a chronic nature, while the latter is characterized by the presence of foci of necrosis in the liver and in the kidneys without presenting phenomena of chronic inflammation, and by the appearance of intranuclear acidophilic inclusions. The differentiation of the two diseases has been proved not only by the difference of their etiologic agents and the different pathologic pictures presented by the diseases but also by the tests of crossed immunity. The two recently discovered diseases should also be differentiated from classic psittacosis. They are not transmissible to man and the type of cellular inclusions is different from those observed in the cases of psittacosis in the United States, previously described by Lillie.

A New Type of Typhus Fever

Drs. Piza, F. and L. Salles Gomes, Meyer, Fleury, Castro, Rodrigues and H. Rocha Lima have made an experimental and clinical study on a disease similar to typhus fever which has been observed in São Paulo since 1929, though probably it existed before that date. Although in some respects similar to typhus fever, the disease does not show the same intensity in the contagion (only forty persons have had the disease); it develops rapidly with a high rate of mortality; the patients complain of muscular pains; the patients have an inconstant Weil-Felix reaction. The conditions of contagion and the properties of the virus of the disease are different from those of typhus fever, as has been proved by experiments with guinea-pigs. The disease is considered by the authors as a morbid entity for which the designation of typhus fever of São Paulo has been suggested.

JAPAN

(From Our Regular Correspondent)

March 21, 1931.

Traffic Accidents in Tokyo

It is quite remarkable how the number of motor cars has increased in Tokyo. Street accidents occur so frequently that deaths and injuries average forty-seven every day. According to the statistics of the Metropolitan Police in Tokyo, during last year there were 28,953 accidents, 17,062 of which resulted in the death or injury of the victims.

Means of Traffic	Number of Accidents	Number of Dead or Injured
Motor car	17,124	8,890
Bicycle	6,205	4,504
Tramway car	2,929	1,386
Motorcycle	1,298	892
Hand wagon	679	429
Horse or ox wagon	625	318
Jinrikisha	34	18
Pedestrian	558	538

The accidents of motorcycles are increasing year by year, the number of deaths during last year being more by 150 than that of the previous year. According to the new regulation published last year, the injured pedestrians are to be punished in case they induce the accidents through their own carelessness.

Parliamentary Notices

The following proposals were made by members of the diet of Japan during the last session:

1. Petition for laws to control the marriage of persons with certain diseases. 2. Petition for the distribution of physicians to remote towns and villages. 3. Act for the health insurance of sailors. 4. Petition for rationalizing medical cares and petition for the establishment of the laws controlling the practitioners in acupuncture.

The petition for the specialization of medical and of pharmaceutic practice which had been before the diet for the last forty years every year, passed the diet this year and will be put in force soon.

Premier Hamaguchi, who was shot in the lower part of the abdomen by an assassin at Tokyo station last year, has almost recovered and appeared before the diet, March 10.

Personals

Dr. M. Ota, professor of the Tohoku Imperial University, who attended the tenth conference on Far Eastern tropical diseases, held in Bangkok, Siam, beginning December 7 last year, parted with the other delegates of our country and went to Manila to attend the Far Eastern Leprosy Conference, held there beginning January 9 under the auspices of the Leonard Wood Foundation.

Dr. Teruoka, chief of the Ohara Institute of Labor at Kurashiki, will be a delegate to the International Labor Conference to be held at Geneva under the auspices of the League of Nations.

Dr. Nagayo, professor of the Tokyo Imperial University, who had been ill for some time, tendered his resignation as chief of the Japan Cancer Society.

Dr. Arima, who had been to Europe as the Japanese delegate to the International Antituberculosis Conference, gave a lecture on antituberculosis work in the European countries at Koraku in Kojimachi, Tokyo, under the auspices of the Japan Antituberculosis Society, January 17.

Dr. Tamura, chief of Asakusa Borough, who was a faithful assistant of Baron Dr. Kitasato, has been appointed chief of the health bureau of Tokyo. He did much for the public during the earthquake disaster in Tokyo in 1923 as sanitary officer of the city.

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Under the auspices of the Japan Medical Association, Dr. Rajchman gave a lecture on the cooperation of the League of Nations in health work, February 6, in the Japan Industrial Building in Tokyo. A welcome dinner was given in his honor after the lecture, and an address was delivered by Dr. Kanasugi, member of the Upper House.

Dr. T. Miyake, emeritus professor in the Kyushu Imperial University, was awarded the Imperial Academy Prize for 1930 as a medical investigator. The ceremony was held, February 12, in the Imperial Academy Hall at Ueno Park, Tokyo.

Dr. C. Miyanaga, professor in the Niigata Imperial Medical College, has succeeded Dean Dr. Sawada, who has resigned on account of age.

BELGIUM

(From Our Regular Correspondent)

April 20, 1931.

Mental Hygiene During Childhood

In the report of the Journées médicales pédagogiques, the following topics present considerable interest:

DETECTION OF PSYCHOPATHIC STATES OF CHILDHOOD

Dr. Vermeylen said that the early detection of psychopathic states in children is often easy: (1) either because they are manifested by apparent mental signs or (2) because they are preceded by signs of a physical nature the value and importance of which are beginning to be recognized and which permit the application of prophylaxis and an early and rational treatment. It is important for teachers to be able to call the physician's early attention to children who would benefit from treatment and to be able to supplement the work of the physician by suitable reeducation while there is time.

MENTAL HYGIENE AND EDUCATION OF THE ABNORMAL CHILD

Dr. Decroly pointed out that the abnormal child is in need of mental hygiene. The entourage of the abnormal child, who is exposed to attacks and to emotions that endanger the neuropsychic equilibrium, has need of mental hygiene. The treatment and the education of the abnormal child constitute a form of mental hygiene and are based on the principles of mental hygiene as applied to normal persons. The study of the abnormal child clears up many points in the psychology of the normal child and makes possible a better comprehension of mental hygiene applied to children in general. The presence of the abnormal child in the family and in the school constitutes an element that may favor the comprehension in these milieus of the problems of mental hygiene. The study of the anomalies that result from some of the scourges of humanity constitutes the basis of measures of mental hygiene of a social character.

EDUCATION IN RELATION TO CRIMINALITY

Dr. Vervaeck brought out that criminality may be, in the last analysis, regarded as an alteration or anomaly of the moral sense. Education may therefore play an essential part in the prophylaxis of crime and in the treatment of delinquents. But the activities of teachers and the results will be limited by conditions that are often anomalous or pathologic as affecting those to whom they address themselves. It is, in fact, a definitively accepted conception of criminal anthropology that two thirds of the inmates of prisons are sick persons or weaklings or belong to the abnormal class, and that among the incorrigible recidivists the proportion reaches nine-tenths. Instruction in the narrower sense does not of itself protect against criminality; sometimes it renders it more dangerous, and this fact furnishes evidence for the imperfections and the lacunae existing in our methods of education. Too often the school does not fulfil the social mission that it should assume. It is not sufficient to enrich and to cultivate the mind. Education should assume more particularly the task of developing the character, forming and strengthening the will, and imparting a high moral culture, in order better to fortify the future citizens against the trials of life and to teach them to control their passions and instincts. A revision, in this direction, of our methods of education would constitute an excellent means of combating criminality.

CRIMINALITY IN CHILDREN

Judge Wets said that the creation of juvenile courts has shown, in a general way, the close relations that exist between criminality in children and the educational insufficiency of the homes from which delinquents are recruited. Among the causes of criminality in children, the most important is the inadequate character of the home, often due to its disorganization. If it is true, in general, that the training of parents in the sense of their duties as future heads of a household is inadequate, it is especially true when it is a question of juvenile delinquents, in which case the events prove the insufficiency of the training. Most of the demands for paternal correction reveal on investigation the faults of early education and training; likewise in the cases at common law the inquiries instituted by the officers of the children's protective league show the same lack.

Relations Between the Medical Profession and the Government

In a communication presented before the Fédération médicale belge, Dr. Mattlet discussed recently the representation of the medical profession in official or governmental organizations. In Belgium, as the representation in the legislative assemblies is not of a professional character, there is no reason why the medical profession should be represented officially. But these assemblies, when questions pertaining to social medicine or to public health, or to the medical profession, arise, should, before passing legislation, secure the competent opinion of the organized medical profession, the only true emanation of practitioners forming a national organization.

The office of minister of health should be created, the incumbent of which would serve as a mediator between the law-making bodies and the medical organizations, which at present are under the domination of nearly all the ministerial departments.

In committees of an administrative nature, the opinions of physicians connected with the administration cannot take the place of the judgments of representatives of the organized medical profession. In both instances the opinions are competent and technical, but they are of an essentially different order; they supplement each the other and are indispensable for the elaboration and proper functioning of any law pertaining to public health. Such laws, too, cannot accomplish all that is expected of them without the support and the sincere collaboration of the medical profession. It is, therefore, requisite that in such organizations there should be a sufficient number of physicians delegated and instructed by the national professional organization, or, in this instance, the Fédération médicale belge.

When the public health or social laws that closely affect the medical profession are involved, the influence of the medical profession on parliament as a whole or on local assemblies should not be restricted to physicians who are members of parliament or who are serving in some official capacity but should be effected through the mediation of technical commissions on which the organized medical profession is represented by professional right. This influence should extend also to the public press and to the entire nation to show that the organized medical profession, while its primary duty is to protect the cause of medicine, has also in view the amelioration of public health and public morals.

The Title of Medical Specialist

Addressing the Academy of Medicine, Dr. de Beule entered recently a plea in favor of the adoption and the legal recognition of a special diploma for medical specialists. He set forth the

serious disadvantages of the present system as regards the interests of the public and of the specialists themselves. He pointed out, on the other hand, how, through the evolution of science and the art of healing, specialization has become an absolute necessity. Specialization should, however, be officially regulated, and some form of regulation has become all the more imperative since the new legislation pertaining to compulsory health insurance will be certain to give rise to a multiplication of hospitals, clinics and dispensaries to which many different specialty services will be attached. Dr. de Beule suggested the creation of a special diploma based on a compulsory term of two, three or even four years spent in a service recognized as suitable for the special training in the field in which the candidate is interested. The training might be evidenced by either a theoretical and practical examination or merely by the attestation of the head of the service in which the training was received.

The obligation of a special diploma for medical specialists might be effected by the enactment of the following legislation: "No one may be placed in charge of a special service in a hospital, an institute or a public or private dispensary who is not the holder of a special diploma certifying to his training in such specialty."

BERLIN

(From Our Regular Correspondent)

April 27, 1931.

The Abortion Problem

A recent letter contained a somewhat detailed discussion on the subject of abortion in Germany. The course that was recently taken by the Hamburg "chamber of physicians" has thrown further light on the subject. Moved by the thought that the members of the "chamber" could not shoulder the whole responsibility for a public statement on this controversial question, it prepared a questionnaire covering the chief phases of the question and a copy was sent to every physician in the city, in order to discover in this manner the attitude of the profession in Hamburg toward section 218 of the penal code. There were 1,266 copies sent out, 880 of which, or about 70 per cent, were returned with questions answered. In order to assure an unembarrassed response to the questions in the questionnaire, it was left to the option of the physician whether or not he signed his name to the inquiry. Only a small proportion of the physicians (scarcely 10 per cent) failed to add their signature. While some may not be inclined to attach much value to such a medical plebiscite, the outcome was nevertheless awaited with eager expectation. The greatest interest centered in the answers to the question concerning the complete abolition of the restrictions on the interruption of pregnancy. The subquestions were: (*a*) by the physician or (*b*) only in specially designated clinics? The result was an unequivocal rejection of the proposal to abolish the present restrictions on abortion. Of the 880 votes, only 41 were for abolition with modification *a*; that is to say, with the intervention performed at will by the practitioner, while 25 approved the removal of restrictions with modification *b* —the intervention to be performed only in designated clinics. That signifies that by 92.5 per cent of the votes cast the proposed abolition of the present restrictions on the interruption of pregnancy was rejected—not only as regards a concession to every licensed practitioner but also with reference to specially delegated clinics. That proves that also the medical profession of Hamburg rejects unconditionally interruption of pregnancy on other than medical indications. It rejected also the purely social indications; that is, the interruption based solely on social or economic reasons, by almost 60 per cent of the votes. Only a minority of about one fourth of the voters favored unconditional recognition of social indications, while a further 11 per cent was for conditional recognition of such indications (testing or appreciation of the indications by an authorized committee). The so-called medicosocial indications were approved by a three-fourths majority, as was to be expected. That the social position of a patient must be given a certain consideration in establishing the prognosis of existing organic diseases is in accord with the view that commonly prevails among physicians. An organic disease takes a different course in a poorly nourished gravida who is compelled to work for her existence than it does in a well-to-do patient who is in a position to take good care of herself. It may be added that, in Hamburg as well, the question as to the admissibility of the interruption of pregnancy when ravishment is proved was answered in the affirmative, a large majority approving such action. There was, however, considerable diversity of opinion in regard to the admissibility of interruption of pregnancy in certain special cases: in young women under 16 years of age (58 per cent for and 42 per cent against); in the presence of at least four children in the family (for, 32 per cent, unconditionally; for, 16 per cent, with certain reservations; opposed, 50 per cent). In the case of too rapid succession of pregnancies, the vote stood: for, 36 per cent, unconditionally; for, 20 per cent, with certain reservations; opposed, 41 per cent. In women more than 40 years of age, the result was: for, 24 per cent, unconditionally; for, 16 per cent, with certain reservations; opposed, 56 per cent. These special cases are cited for the sake of completeness. The voting on such arbitrary cases has hardly much value as showing the actual trend of views. The chief importance of the whole inquiry lies undoubtedly in the attitude toward the proposed abolition of restrictions and the attitude toward the purely social indications. The attitude of the physicians of Hamburg corresponds doubtless essentially to the attitude of the profession as a whole, so that many have expressed the view that the institution of further similar inquiries in other sections of the country would be superfluous and would be likely to cause confusion. However, this view does not appear to be shared by all; for a new inquiry has been launched by the league of German women physicians, the questionnaire being similar to that sent out in Hamburg but differing in some respects.

The Scientific Committee on Research and Combating of Circulatory Disturbances

For more than eight years, the United States has had its committee on research and combating of cardiac disease. Organizations that at first worked independently have thus united to form a working merger. The work that is being done by this committee is, however, little known in Germany as yet. The purpose and the tasks of the Kerckhoff institute recently established in Bad Nauheim for research and combating of cardiac disease are similar to those of the American Heart Association. Also the Deutsche Gesellschaft für Kreislaufforschung has similar objectives. The result has been therefore the creation of a working merger of the Kerckhoff institute and the Deutsche Gesellschaft für Kreislaufforschung.

As exact statistical information on the mortality and morbidity of circulatory disturbances and their causes is one of the most essential tasks to be undertaken, and since statistical researches can lead to unequivocal results only when they are carried out on an exact scientific basis, the federal bureau of health was asked to aid the undertaking. The mortality rate in Germany has declined, as it has in most parts of the world. But whereas, in 1905, 122,000 persons died in Germany from circulatory disturbances, the deaths from such causes in 1928 totaled nearly 168,000. In 1905, only 10 per cent of the deaths were due to diseases of the heart and blood vessels, whereas in 1928 the proportion rose to 23 per cent. The constituent assembly was held, April 12, in Nauheim, and was attended by about 130 scientists from Germany. Through Prof. Dr. Franz Groedel, the director of the Kerckhoff institute, the new organization has close contacts with its prototype, the American Heart Association, so that it is to be hoped that a fruitful cooperation with the United States and other countries of the

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world can be accomplished, and steps in that direction have already been taken.

Geheimrat Dr. Hamel, president of the federal bureau of health, opened the important assembly (the first to be held in the auditorium of the Kerckhoff institute) with greetings addressed to the representatives of the federal and the Hessian governments, the universities and the medical profession, and assured the newly established committee of his support. During the coming decades, an increasing effort must be made to preserve the vitality and energy of the German people in view of the fact that the proportion of the population in the advanced age groups will, for a number of years at least, be constantly increasing.

Professor Groedel presented then a communication on "Circulatory Disturbances as a Racial Disease." Not only the mortality of heart disease has increased but also that of cancer. Heart disease affects, to be sure, chiefly the older age groups (beyond age 40), but even in the 20-30 age groups 10 per cent of the deaths are due to circulatory disturbances. According to the mortality statistics there is no more heart disease in the large cities than in the small towns. It may be figured that from 2 to 3 per cent of all living persons are sufferers from heart disease. In the afternoon, the first session of the newly established committee was held, at which, after a lively discussion, a provisional plan for the investigation and combating of circulatory disturbances was drawn up. In conclusion, Prof. Eberhard Koch, balneologist at the Kerckhoff institute, spoke on the "Aims and Methods of Research on the Circulation."

Health Service in the Rural Districts

At the suggestion of the Spanish government, a convention of international experts was held recently in Geneva for the exchange of views on health service in the rural districts. Germany sent as delegates Professor Konrich of the federal bureau of health, who served as chairman of the convention; one representative of the rural physicians, and a representative of the sick benefit associations (*krankenkassen*). The chief topics on the program, as proposed by the health commission of the League of Nations, were: (1) the best methods of assuring adequate medical care for the rural population; (2) the organization of the welfare and aid service, and (3) the most economical and the best organization for improving the sanitary conditions in plain regions. It was recommended that there should be a physician available for every 2,000 inhabitants. When the organization of the health service has been fully consummated, one physician for every thousand inhibitants may be required, as through the organized service the demand for medical aid usually increases. Provision must be made for adequate nursing assistance, and even in the smallest commune there must be some one who can give first aid and can carry out medical prescriptions. For every community of from 20,000 to 30,000 inhabitants a hospital should be provided. When possible, rural populations should have likewise the advantages of specialists. It was generally recognized that a comprehensive health insurance is the best method of assuring adequate medical aid. Some time was devoted to the discussion of the question of special treatment centers, which combine treatment, welfare and aid work and general hygiene in one bureau, and which are particularly needed where medical care and the general health service are still undeveloped. The question of quackery, to which the rural population is especially exposed, was discussed.

The Congress of Psychology

The twelfth congress of the Deutsche Gesellschaft für Psychologie was held in Hamburg, April 12 to 16. Geheimrat Bühler of Vienna, president of the society, gave the address of welcome. The scientific work of the congress was begun with an address by Prof. R. Sommer of Giessen on "The History of the Gesellschaft für experimentelle Psychologie from 1904 to 1929." Dr. Katz, psychologist, of Rostock, spoke on "Hunger and Appetite." In the afternoon, a series of shorter addresses from the field of psychology was presented. In the evening, Prof. F. Krüger of Leipzig spoke on "The Aim and Purpose of Psychology at the German Universities."

Hereditary Transmission of Acquired Characters

During an excellent series of lectures delivered recently before the Kaiser-Wilhelm-Gesellschaft zur Förderung der Wissenschaften, Prof. Richard Goldschmidt, biologist, spoke on "The Production of New Hereditary Characters." The fact that nowhere in nature is there an hereditary transmission by the individual of acquired characters, unless the germ plasma is directly influenced by chemicals, high temperatures or roentgen rays, has led to a revision of the Lamarck-Darwin conception. The hereditary mass, the carriers or exponents of which are the genes, located in the chromosomes of the nucleus of the germ cells, would be per se eternal and unchangeable if occasional mutations did not bring about a differentiation in the plant and animal kingdoms. Such mutations, which are the basis of the origin of not only all differentiated hereditary characters but of all the multiplicity in the animate world, can be produced also artificially in the manner mentioned (roentgen irradiation, use of special chemicals). The great majority of the influences brought to bear by the outside world have, however, no effect on the germ plasma and are not hereditarily transmitted. Also the endeavors of the individual to adapt himself to the world about him, as brought out by Darwin, do not leave a substratum in the offspring and cannot be regarded as the cause of the manifestations of evolution. Concerning the manner and the causes of mutations, Goldschmidt uttered the hypothetical conjecture that mutations are referable to changes in the genes, which, while they occur only occasionally, are nevertheless subject to certain laws. Perhaps in course of time it will be possible to erect some solid supports under these theoretical superstructures.

Three Decades of Paraffin Plastics

The petrolatum recommended by Gersuny in 1900, and likewise the other soft paraffins, together with the mixture of these with hard paraffins, act as fluids in the body and are therefore unsuitable as "subcutaneous prosthesis." Soft paraffin is absorbed at least in part; it may "migrate" even after the lapse of years and produce irreparable tumors and disfigurations. In a number of instances, pulmonary emboli and blindness have resulted from injections in or about the nose. All precautionary measures employed were in vain. On the other hand, the pure hard paraffin, with a melting point of at least 50 C., as introduced by Eckstein in 1901, has continued to give excellent results. In interventions on the face, he uses, as he stated in an address before the Berliner Medizinische Gesellschaft, the syringes of Mahn or Brünings, which are recommended for injections of soft paraffin with a lower melting point, as he finds that with them adjustment of the dose and localization of the paraffin are facilitated; in places that do not require such exact localization, he employs his own rubber-covered syringe. In more than sixty patients, some of whom were introduced in person while others were shown in photographs (some cases extending back more than thirty years with no changes), and also by exhibiting preparations, Eckstein made it evident that with hard paraffin resorption is out of the question. Not only in interventions on the face—more particularly in nose deformities, bone defects, atrophies; also wrinkles and emaciations, but also in rectal and uterine prolapse, paraffin can be utilized with excellent results. For mammary prosthesis, paraffin can be used to advantage only in unilateral defects of a benign nature and in marked hypoplasia without depression of the tissues. The paraffin filling has found extensive usage in surgery of the thorax (Bär, Sauerbruch). During a period of thirty years, in which he has treated more than a thousand patients, Eckstein has had only one fatality.

Marriages

GUY A. SLOAN, Bloomington, Ill., to Mrs. La Rye Augspurger of Pulaski, Iowa, May 18.

LEWIS DESMOND FOOTE, Staten Island, N. Y., to Miss Anne Elizabeth Flynn, May 16.

JACOB MUNTER LOBSENZ, New York, to Miss Marjorie Marion Roset, May 24.

FRED E. SCHON to Miss Evelyn Dunn, both of Chicago, May 6.

GEORGE OREN MOSS, Cliffside, N. C., to Miss Anne Finch, May 8.

Deaths

Charles Edward Ide, Milwaukee; Rush Medical College, Chicago, 1900; member of the State Medical Society of Wisconsin; at one time assistant clinical professor of medicine, Marquette University School of Medicine; formerly on the staff of the Muirdale Sanatorium, Wauwatosa; aged 57; died, May 4, in the Columbia Hospital, of uremia and cardiovascular renal disease.

Frank C. Campbell, Xenia, Ill.; University of Louisville School of Medicine, 1896; formerly member of the state legislature, and mayor of Xenia; bank president and president of the board of education; aged 59; died, May 9, in the Olney (Ill.) Sanitarium, following an operation for gallstones.

William Robert Harbison, Bolivar, N. Y.; University of Buffalo School of Medicine, 1926; member of the Medical Society of the State of New York; served during the World War; aged 33; died, May 4, in the Millard Fillmore Hospital, Buffalo, of general peritonitis, following an operation.

Frederick D. Ruland ✠ Westport, Conn.; Medical Department of Columbia College, New York, 1889; member of the American Psychiatric Association; past president of the Fairfield County Medical Society; medical superintendent of the Westport Sanitarium; aged 66; died, May 9.

Carroll W. Clark, Caro, Mich.; Detroit College of Medicine, 1889; member of the Michigan State Medical Society; member of the school board; for many years county coroner; on the staff of the Caro Community Hospital; aged 68; died, May 2, of heart disease.

Alexander McKenney, Owensboro, Ky.; Vanderbilt University School of Medicine, Nashville, Tenn., 1889; member of the Kentucky State Medical Association; formerly on the staff of the Owensboro City Hospital; aged 69; died, April 29, of heart disease.

Julius H. Potter ✠ Buffalo; Bellevue Hospital Medical College, New York, 1881; past president of the Medical Society of the County of Erie; on the staff of the Lafayette General Hospital; aged 74; died, May 19, of cerebral hemorrhage.

Thomas S. Bradford, Augusta, Ky.; Jefferson Medical College of Philadelphia, 1871; for ten years mayor of Augusta, and a member of the city council for eighteen years; bank president; aged 82; died, May 4, of acute nephritis.

William F. Danzer, Hazleton, Pa.; Jefferson Medical College of Philadelphia, 1889; member of the Medical Society of the State of Pennsylvania; formerly medical inspector of public schools; aged 65; died, April 6, of heart disease.

Frank Dyckman Rich, Joliet, Ill.; University of Michigan Homeopathic Medical School, Ann Arbor, 1893; member of the Illinois State Medical Society; aged 61; died, May 8, in the Silver Cross Hospital, of pernicious anemia.

Arnold Welles Catlin, Brooklyn; University of Pennsylvania School of Medicine, Philadelphia, 1865; member of the Medical Society of the State of New York; on the staff of St. John's Hospital; aged 90; died, March 28.

Benjamin C. Wakely, Angelica, N. Y.; University of Buffalo School of Medicine, 1876; member of the Medical Society of the State of New York; formerly coroner and health officer of Angelica; aged 72; died, April 1.

Isaac Thomas Costen, Pocomoke City, Md.; Pennsylvania Medical College, Philadelphia, 1857; formerly member of the state legislature; aged 98; died, April 1, of cardiac asthma, toxemia and cardiovascular renal sclerosis.

John Henry Miller, Pana, Ill.; Missouri Medical College, St. Louis, 1880; at one time member of the city council and school board; formerly on the staff of the Huber Memorial Hospital; aged 75; died, May 5.

James W. Collins, Newark, N. J.; Bellevue Hospital Medical College, New York, 1863; Civil War veteran; aged 89; died, April 19, in the City Hospital, of uremia, nephritis and hypertrophy of the prostate.

James Michael McTiernan, Middlebury, Vt.; Tufts College Medical School, Boston, 1908; aged 46; died, April 29, in the Mary Fletcher Hospital, Burlington, of injuries received in an automobile accident.

Lester Charles Scully ✠ Berkeley, Calif.; University of Michigan Medical School, Ann Arbor, 1915; surgeon, U. S. Public Health Service; aged 40; died, May 3, in New York, of bilateral lobar pneumonia.

George Dillon Morris ✠ Goldsboro, N. C.; University of Pennsylvania School of Medicine, Philadelphia, 1924; on the staffs of the Goldsboro Hospital and Spicer's Sanatorium; aged 35; died, April 17.

Elijah A. Cherry, Bowling Green, Ky.; University of Louisville School of Medicine, 1890; member of the Kentucky State Medical Association; aged 68; died, April 30, of pyemia following influenza.

Jacob Creston Mast, Elkhart, Ind.; Detroit College of Medicine, 1894; member of the Indiana State Medical Association; formerly county coroner; aged 62; died, May 2, of cerebral hemorrhage.

Harold Thornton Bibber, Bangor, Maine; Medical School of Maine, Portland, 1908; aged 53; died, May 3, in the U. S. Marine Hospital, Portland, of pneumonia, duodenal ulcer and chronic nephritis.

George Thomas Rankin, Jr. ✠ Akron, Ohio; University of Pennsylvania School of Medicine, Philadelphia, 1899; on the staff of the Akron City Hospital; aged 55; died, May 9, of heart disease.

Arne A. Stemsrud ✠ Dawson, Minn.; University of Minnesota College of Medicine and Surgery, 1901; on the staff of the Dawson Surgical Hospital; aged 59; died, April 27, of heart disease.

George Sumner Hill ✠ Boston; Harvard University Medical School, Boston, 1899; formerly on the staff of the Massachusetts General Hospital; aged 63; died, March 27, in Marblehead.

Edward Augustine Drummond ✠ New York; Harvard University Medical School, Boston, 1900; formerly on the staff of the Lutheran Hospital of Manhattan; aged 58; died, April 4.

Frederick B. Samson, Hartford, Mich.; Medical College of Ohio, Cincinnati, 1886; formerly member of the board of health of Cincinnati; aged 71; died, April 23, of heart disease.

Peter Joseph Gillen, Clinton, Ill.; Marion-Sims College of Medicine, St. Louis, 1898; member of the Illinois State Medical Society; aged 62; died suddenly, April 20, of heart disease.

Benjamin W. Cooper, Connersville, Ind.; University of Louisville (Ky.) School of Medicine, 1907; for eleven years county coroner; aged 57; died, April 18, of cerebral hemorrhage.

Charles Z. Axline, Fultonham, Ohio; Medical College of Ohio, Cincinnati, 1876; member of the Ohio State Medical Association; aged 80; died, April 22, of pulmonary tuberculosis.

Benjamin Franklin Smart, Miami, Fla.; Birmingham (Ala.) Medical College, 1915; acting assistant surgeon, U. S. Public Health Service; aged 42; died, April 18, of peritonitis.

John Crittenden Nichols, Muscatine, Iowa; Rush Medical College, Chicago, 1880; Civil War veteran; aged 86; died, February 21, of duodenal obstruction and diabetes mellitus.

Gilbert S. Olin, Oneonta, N. Y.; Albany Medical College, 1877; aged 74; died, April 22, in a hospital at Fayetteville, N. C., of injuries received when struck by an automobile.

Andrew Watt, Providence, R. I.; University of Aberdeen Faculty of Medicine, Aberdeen, Scotland, 1880; aged 72; died, February 25, of diabetes mellitus, nephritis and gangrene.

Frank Mackie Johnson, Freeport, N. Y.; Harvard University Medical School, Boston, 1883; aged 75; died, April 17, in a sanatorium at Stamford, Conn., of angina pectoris.

Anna E. Broomall, Chester, Pa.; Woman's Medical College of Pennsylvania, Philadelphia, 1871; emeritus professor of obstetrics at her alma mater; aged 84; died, April 4.

Bernard Joseph O'Donnell, Tulsa, Okla.; State University of Iowa College of Medicine, Iowa City, 1929; aged 27; intern, St. John's Hospital, where he died, March 28.

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James Beaufort Sims, Aberdeen, Miss. (licensed, Mississippi, 1897); member of the Mississippi State Medical Association; aged 69; died, May 10, of cerebral hemorrhage.

Joseph Jeremiah O'Brien ✠ Boston; Tufts College Medical School, Boston, 1902; on the staff of St. Margaret's Hospital; aged 54; died, April 17, of angina pectoris.

Oscar K. Bond, Catlettsburg, Ky.; Hospital College of Medicine, Louisville, 1906; member of the Kentucky State Medical Association; aged 49; died, February 16.

James Herbert Benson, Cortland, N. Y.; Eclectic Medical College of the City of New York, 1880; aged 81; died, February 20, of carcinoma of the ascending colon.

Robert B. Clark ✠ Monroe, Wis.; Rush Medical College, Chicago, 1887; on the staff of the Evangelical Deaconess Hospital; aged 70; died, May 4, of heart disease.

James L. Boone, Sheldon, Mo.; Missouri Medical College, St. Louis, 1880; aged 81; died, April 26, in St. Luke's Hospital, Kansas City, of pneumonia and uremia.

William Wilkinson Murray, Suffolk, Va.; National University of Ireland Faculty of Medicine, Dublin, Ireland, 1869; Civil War veteran; aged 86; died, April 29.

Harry Eugene Kingslow, Evanston, Ill.; Meharry Medical College, Nashville, Tenn., 1915; aged 48; died, April 29, in Plainfield, N. J., of pulmonary tuberculosis.

Morton Wallace Bland, Logan, Ohio; Rush Medical College, Chicago, 1900; member of the Ohio State Medical Association; aged 53; died, April 21, of uremia.

William Thomas Phy ✠ Hot Lake, Ore.; University Medical College of Kansas City, 1897; past president of the state board of health; aged 57; died, March 14.

George S. Weaver, McDonough, N. Y.; Syracuse University College of Medicine, 1882; member of the Medical Society of the State of New York; died, in April.

Alwyn Melville Crane, Marion, Ohio; Columbus Medical College, 1880; aged 76; died, April 15, in a hospital at Columbus, of fracture of the hip, received in a fall.

Nellie B. Hampton, Norwood, Ohio; Presbyterian Hospital and Woman's Medical College, Cincinnati, 1891; aged 62; died, March 9, of cerebral hemorrhage.

Edward M. Stanley, Louisville, Ky.; Southwestern Homeopathic Medical College and Hospital, Louisville, 1898; aged 62; died, April 22, of cerebral hemorrhage.

Charles Paul Engel, Colton, Calif.; Rush Medical College, Chicago, 1916; member of the California Medical Association; aged 42; died, April 29, of pneumonia.

John Rudolph Partenheimer, Philadelphia; University of Pennsylvania School of Medicine, Philadelphia, 1872; aged 82; died, April 23, of chronic myocarditis.

James Alexander Bean, Lake George, N. Y.; Medical Department of Columbia College, New York, 1885; aged 79; died, May 12, in Miami Beach, Fla.

Marcus Finkelstein, New York; Medical Department of the University of the City of New York, 1895; aged 64; died suddenly, April 20, of heart disease.

Benjamin Cook, Brooklyn; Long Island College Hospital, Brooklyn, 1915; aged 42; died, April 18, in the Beth Israel Hospital, New York, of leukemia.

Marshall Thomas Martin, Madison, Wis.; Rush Medical College, Chicago, 1880; Bellevue Hospital Medical College, 1881; aged 80; died, March 28.

Bennet N. Bethel, Philadelphia; University of Pennsylvania School of Medicine, Philadelphia, 1865; Civil War veteran; aged 91; died, April 25.

Lemuel Clark Hatton, Coldwater, Mich.; Hahnemann Medical College and Hospital, Chicago, 1895; Civil War veteran; aged 84; died, May 14.

Charles Stuart Bowman, Alsey, Ill.; Barnes Medical College, St. Louis, 1909; served during the World War; aged 45; died, May 10, of pneumonia.

Clara Barrus, Roxbury, N. Y.; Boston University School of Medicine, 1888; aged 66; died, April 4, in Scarsdale, of carcinoma of the left breast.

Frank Edwin Nichols, Johnstown, Pa.; Hahnemann Medical College and Hospital of Philadelphia, 1902; aged 61; died, April 29, of heart disease.

Winfield S. Drake, Zanesville, Ohio; Cleveland Medical College, 1872; aged 82; died, May 9, of acute dilatation of the heart and arteriosclerosis.

Franklyn Herman Miller, Freeport, N. Y.; Columbia University College of Physicians and Surgeons, New York, 1900; aged 60; died, March 2.

Clifford Colgate Moore, New York; Columbia University College of Physicians and Surgeons, New York, 1900; aged 57; died, April 16.

James Herbert Shawe, Huntington, N. Y.; Long Island College Hospital, Brooklyn, 1893; aged 71; died, May 2, of dilatation of the heart.

Herman K. Ehrlich, La Porte, Ind.; College of Physicians and Surgeons, Keokuk, Iowa, 1872; aged 87; died, April 19, of cerebral embolism.

Thomas Jefferson Dillinger, Athens, Ohio; Starling Medical College, Columbus, 1893; aged 72; died, April 25, of cerebral hemorrhage.

Benjamin S. Gardner, Marietta, Okla.; Memphis (Tenn.) Hospital Medical College, 1892; aged 72; died, April 25, of cerebral hemorrhage.

Zenas Reuben Chamberlain, Walbridge, Ohio; Eclectic Medical Institute, Cincinnati, 1903; aged 60; died, May 9, in a hospital at Toledo.

John Joseph Madden, Jr., Providence, R. I.; Tufts College Medical School, Boston, 1912; aged 50; died, May 6, of pulmonary tuberculosis.

Samuel M. Jordan, Georgetown, Miss.; Medical Department of the University of Louisiana, New Orleans, 1870; aged 83; died, April 19.

Alfred Dorance Daniels, Rhinelander, Wis.; Detroit Medical College, 1876; aged 77; died, May 7, of pyelitis and bronchopneumonia.

Harvey L. Van Natta, Sycamore, Ohio; College of Physicians and Surgeons, Baltimore, 1882; aged 73; died, April 20, of heart disease.

John Steward Sharp, Salt Lake City, Utah; Jefferson Medical College of Philadelphia, 1890; aged 79; died, April 23, of heart disease.

Harry C. Campbell ✠ Alton, Ill.; Keokuk (Iowa) Medical College, 1895; on the staff of St. Joseph's Hospital; aged 61; died, April 27.

Milton Whitfield Richey, Le Mars, Iowa; Kentucky School of Medicine, Louisville, 1876; aged 76; died, April 6, of pneumonia.

Charles Otis Loomis, Boston; Eclectic Medical College of Pennsylvania, Philadelphia, 1878; aged 73; died, April 12, of heart disease.

Loren Swaney, Kansas City, Mo.; Kansas City Medical College, 1873; aged 81; died, April 11, of cerebral thrombosis and arteritis.

Llewellyn McKitrick, Worthington, Ohio; Columbus Medical College, 1890; aged 68; died, April 26, of cerebral hemorrhage.

Joseph P. Lenahan ✠ Philadelphia; Medico-Chirurgical College of Philadelphia, 1907; aged 55; died, April 24, of chronic myocarditis.

Woodruff T. Chandler, Campbellsville, Ky.; Louisville (Ky.) Medical College, 1874; aged 79; died, April 26, of pneumonia.

J. H. DeLozier, Newport, Tenn.; National Normal University College of Medicine, Lebanon, Ohio, 1891; aged 63; died, March 10.

George Henry Stroup, Pittsburgh; University of Pennsylvania School of Medicine, Philadelphia, 1874; aged 82; died, March 1.

Franklin O. Lyford, Farmington, Maine; Hahnemann Medical College of Philadelphia, 1877; aged 84; died, April 8.

Franklin Pierce Mitchell, Winters, Calif.; California Medical College, Oakland, 1885; aged 77; died, March 28.

Nochim Sapiro, New York; Medical Department of the University of the City of New York, 1889; died, April 1.

Alfred Lauder Ellis ✠ Metuchen, N. J.; Long Island College Hospital, Brooklyn, 1902; aged 53; died, March 27.

Cyrus A. Cusick, Lewisburg, Ohio; Cincinnati College of Medicine and Surgery, 1892; aged 79; died, April 5.

Calvin Pollock, Van Wert, Ohio; Long Island College Hospital, Brooklyn, 1867; aged 87; died, March 2.

John P. Nolan, New York; United States Medical College, New York, 1880; aged 73; died, March 27.

Henry C. Connaway, Hebron, Md.; Baltimore Medical College, 1902; aged 51; died, in March.

Bureau of Investigation

MORE MEDICAL FRAUDS

Some Minor Swindles Debarred from the Mails

What follow are brief abstracts of various memoranda prepared by the Hon. Horace J. Donnelly, Solicitor for the Post Office Department, for the Postmaster General. They embody findings of fact and recommendations that the Postmaster General issue fraud orders closing the mails to the concerns or persons involved:

Flowering Herb Company.—This was a trade name used by one Walter L. Klinger, who did business from 5529 Dakin Street, Chicago. Klinger sold some herbs, to be used as a tea, under the claim that they would cure diabetes. The main ingredient—and, according to Klinger, the only one that was intended to be in the packages that he sold—was the "buckbean" (*Menyanthes trifoliata*) that is to be found in various parts of North America. Mixed with it, however, there was quite a small amount of equisetum, commonly known as "horsetail." The instructions that went with the package were that the herbs should be boiled and strained and the resulting decoction drunk warm to the amount of three cups daily. Klinger's advertisements stated that diabetes could be relieved in five days and that a cure was not impossible. He also stated in his advertising that "Flowering Herb" was a mixture of "three imported herbs, blended together in proper proportion." When his case came up before the postal authorities, he admitted that his so-called Flowering Herb was *not* a mixture of three herbs but, supposedly, only one herb, and was not imported but was an American product. He testified that he bought the herb from a druggist in two-hundred-pound bales and picked out the foreign matter, using the back porch of his residence as his factory. He admitted, also, that the Japanese or Chinese characters that he put on his trade package had no significance. He sold the stuff at $2.50 a box. The thing was declared a fraud and on March 19, 1931, the Flowering Herb Company and its officers and agents, as such, had the United States mails closed to them.

Amol Company.—The Amol Company of New York was a trade name used by one Maurice Lundin in the sale of what he called "Amol Pep Tablets." In this department of THE JOURNAL, January 18, 1930, Maurice Lundin and his fraudulent business were the subject of a brief article, at the time that the postal authorities issued a fraud order against the Bono Drug Company, which was another trade name used by Lundin. Lundin has, for years, been swindling the public through the United States mails by one scheme or another. Under the name of the Strong Chemical Company, some years ago, he was selling a glass vacuum pump called the "Emperor Male Developer." It was debarred from the mails. Under another trade name, Lundin sold a device called the "Saddle" as an alleged cure for impotence; this was held obscene by the postal authorities. Under still another name, Lundin sold a small pneumatic ring called the "Potentor," for the alleged cure of impotence; this became the basis of a fraud order. Then, under the name of the Bono Drug Company and Bono Company, Lundin sold "French Pep Tablets," "French Pomade" and "Bono Balsam," the first two of which were supposed to be 'cures" for impotence and the last to grow hair on bald heads. A fraud order was issued against the Bono outfit. Now, under the name of the Amol Company, Lundin is still selling his French Pep Tablets under the name of Amol Pep Tablets. Another fraud order was issued against the Amol Company, January 2, 1931. Until the postal authorities finally put Lundin where he belongs—in the penitentiary—he will, presumably, continue to swindle the public under whatever trade name happens to suit his fancy!

Fong Wan Herb Company.—This was a trade name employed by Fong Wan, who sold through the United States mails so-called Chinese herbs that were alleged to cure various diseases and ailments. Fong Wan advertised in the newspapers (we have on file some advertisements from the San Francisco *Examiner* and some from the San Francisco *Chronicle*) and thus established contact between swindler and victim. Those who answered the advertisements and asked Fong Wan if his herbs would cure their ailments were promised permanent relief of such conditions as stomach ulcers, tuberculosis, diabetes, syphilis, cross-eyes, paralysis and epilepsy. The victims were further told that the herbs were compounded to meet individual needs and that the price was $10 a week or $35 a month. Regardless of the disease to be treated, the directions accompanying the herbs were always identical. Examination and analysis of the herbs sold by this quack showed that they contained nothing that would be in any way beneficial or curative for the conditions for which they were recommended. Fong Wan is said to have done a gross business of $50,000 annually. On November 8, 1930, the Postmaster General, on the recommendation of Solicitor Donnelly, closed the mails to the Fong Wan Herb Company.

Texan Products Company.—This was a trade name used by Mrs. B. M. Cabanes of San Antonio, Texas, who was selling through the mails two products—Gonococorina, which was claimed to be a cure for gonorrhea, and Anti-Pyorrhea, sold as a cure for diseases of the mouth, bleeding, inflamed gums, "bad breath," etc. A fraud order had previously been issued on a business run by this woman under the name, National

ANOTHER POSTHUMOUS TESTIMONIAL

THE PATRIOT, HARRISBURG, PENNA., MARCH 5, 1931

ENDED HEALTH ILLS

"Ten Herbs made me feel better than I have for years," said Mr. J. M. Hocker, Dauphin, Pa., (near Harrisburg). "I was weak and run-down and suffered from

MR. J. M. HOCKER

stomach trouble for a long time. Indigestion caused pains, gas, belching and shortness of breath. My bowels were always irregular and my liver was very sluggish. I would be as tired upon arising as when I went to bed. I tried Ten Herbs and all these health troubles were relieved. My kidneys, stomach and liver have been greatly improved. I gladly recommend Ten Herbs to other sufferers."

Ten Herbs is sold at the Square-Cut Rate Store, Second and Market Sts., Harrisburg, and by all leading druggists throughout this entire section.

JAMES M. HOCKER

James M. Hocker died Tuesday at his home in Clarks Valley. He was 67 years old. Three sisters, Mrs. Theodore McCarty, of Brooklyn, N.Y., Mrs. Samuel Gingrich, of Steelton, and Mrs. William Fry, of Dauphin, survive him. Funeral services will be held in Zion Evangelical Church, near Dauphin, Saturday afternoon at 2:30 o'clock. The Rev. H. Firing, of the Dauphin Evangelical Church, will officiate. The Rev. J. K. Robb, of Dauphin Lutheran Church, will officiate. Burial will be in Dauphin Cemetery. The body may be viewed at the Charles C. Baker funeral parlors, Third and Maclay streets, Harrisburg, Friday evening after 7 o'clock.

"Ten Herbs," according to the testimonial, "Ended Health Ills" of Mr. J. M. Hocker. Thus, the Harrisburg (Pa.) *Patriot* of March 5, 1931. Certainly something did! For on another page of the same issue of the paper Mr. Hocker's death notice appeared.

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Medical Products Company. This went into effect June 6, 1930. At that time, the Solicitor for the Post Office Department, in his memorandum to the Postmaster General, stated that the ingredients of the product, Gonococorina, were sodium carbonate, copaiba, sulphuric ether and water; the Anti-Pyorrhea product was said to have been a preparation of the Bristol-Myers Company of New York, containing Ziratol. It appeared in the earlier fraud order that in addition to the alleged cures for gonorrhea and pyorrhea, this woman also sold nostrums for the alleged treatment of rheumatism, epilepsy, tuberculosis, "lost manhood," and other conditions. After the issuance of the fraud order last June, Mrs. Cabanes decided that the business was too profitable to give up and she attempted to evade the fraud order by the simple process of changing the name of the company and notifying previous customers of this fact. On September 4, 1930, the government extended the fraud order to cover the Texan Products Company.

Universal Sales.—This was a trade name used by one C. H. Bernard, who sold through the mails a so-called Vacuum Muscle Massager, commonly known as a vacuum pump, for the alleged purpose of developing the male sexual organ. Bernard advertised in the *Police Gazette*. The business was declared a fraud and on November 11, 1930, was debarred from the mails.

Holmes' Dead Shot.—Benjamin P. Holmes, a Georgia farmer, for some years sold through the United States mails a fraudulent nostrum for the alleged cure of syphilis and gonorrhea. Finally the postal authorities got around to him and on April 30, 1925, issued a fraud order against Holmes, debarring him from the use of the United States mails. A short time after the issuance of the fraud order, Holmes filed a petition in the United States District Court for the Southern District of Georgia for an injunction to restrain the enforcement of the fraud order. The injunction was denied. In July, 1925, evidence came to the postal authorities showing that Holmes was continuing his fraud, but from a different address. The fraud order was, at that time, extended to cover the new location. In September, 1929, the postal authorities obtained evidence showing that the same scheme was being operated under the names of Mrs. B. P. Holmes and Effie Holmes. The fraud order was further extended to include those names. In September, 1930, the postal authorities were in receipt of evidence showing that circulars offering "Holmes' Dead Shot" through the mails were again being distributed to the public, the only difference in the advertising being that the initials "B. P." before Holmes' name had been obliterated and the letter "O." substituted therefor. As a result, on September 8, 1930, the original fraud order was extended once more. It seems a pity that Holmes has not been prosecuted criminally by the federal authorities and sent to the penitentiary. Such flagrant flaunting of the powers of the United States government by an obscure swindler is not likely to increase the respect of law-abiding citizens for their own government. Furthermore, such wholly inadequate punishment is not likely to act as a deterrent to other swindlers.

Symptoms Occurring in the Late Winter.—A loss of strength, with indigestion or nervousness or both, appearing or increasing in the late winter or spring and improving in the fall, weariness, dizziness or vertigo, discomfort or pain in the pit of the stomach, headaches, wakefulness, and frequently also sluggish bowel action are common early symptoms of pellagra. Such symptoms may, of course, be due also to causes other than pellagra. A burning or scalding of the mouth, reddened tongue, and burning of the hands and feet may be characteristics of later stages of pellagra, and their presence justifies a suspicion of the disease, especially if the individual is known to use a diet low in milk, meat, vegetables and fruit. . . . The most definite and characteristic signs of the disease are the more or less bilaterally symmetrical skin lesions, at first appearing like sunburn, then turning a dirty-brown color, parchment like in texture, after which the skin becomes rough and scaly, and even cracks and peels.—Stiebeling, H. K., and Birdseye, M.: Adequate Diets for Families with Limited Incomes, Miscellaneous Pub. 113, U. S. Dept. of Agriculture, April, 1931.

Correspondence

"SYMPTOMATIC TREATMENT FOR NARCOLEPSY"

To the Editor:—Knowing that it has been the policy of THE JOURNAL to prevent misconceptions and referring to the recent article by Doyle and Daniels (Symptomatic Treatment for Narcolepsy, THE JOURNAL, April 25, p. 1370), in which the value of ephedrine for the relief of this syndrome is established on the basis of six observations, it is only fair to point out that a previous communication on this subject has been overlooked. In discussing a presentation by Professor Pelnar, "Narcolepsie avec cataplexie" at the Société de neurologie of Prague, June 18, 1930 (*Rev. neurol.* **37**:427 [Oct.] 1930), Janota and Skala reported three cases of narcolepsy most favorably influenced by ephedrine and stressed the fact that the drug did not seem to possess the same inhibitory effect on the cataplexic component of the syndrome. It was their belief that ephedrine had not been employed, prior to that time, in combating narcolepsy. Obviously, this is one more instance in which authors residing in widely separated lands arrive, independently of one another, at the same conclusions.

LASALLE ARCHAMBAULT, M.D., Albany, N. Y.

INHERITANCE OF HARELIP

To the Editor:—In THE JOURNAL, April 4, page 1169, appears the statement that harelip is not an inherited characteristic. Butcher and Hutchinson have reported cases of heredity of the deformity. Péron in his doctoral thesis presented before the Faculty of Medicine of Paris in 1929 discussed the frequency of congenital harelip and cleft palate and stated that the deformity is rarely an inherited characteristic, although there are certain instances in which the rôle played by inheritance cannot be denied.

HENRI VIGNES, M.D.,
52 Rue de Vaugirard (VI^e^), Paris, France.

"PATHOLOGIC SOLICITUDE"

To the Editor:—I was quite intrigued by the delightful comment of Dr. Theodore Diller in the May 9 issue of THE JOURNAL on "the Iberler complex." Those of us who are engaged in the practice of neuropsychiatry are only too familiar with the "pathologic solicitude" of a host of relatives and meddlesome friends of the psychotic unfortunate. The daily phone call of interminable length, with its endless questions, criticisms and suggestions, a thousand assurances and insistences that the patient is really not insane but is sure to become so when realization dawns on him that he is confined in an institution with psychotics as companions, the constant pleas to remove the patient to his home, where the solicitous care and devotion of some member of the family will readily affect a recovery—these and a hundred other harassing situations and distractions are indeed striking examples of "pathologic solicitude" developed by members of the patient's family which in time creates in them evidences of pathologic behavior almost akin to the psychoses.

It has been my experience, as no doubt it has to others engaged in the practice of neuropsychiatry, that the highly emotional races, the Jewish and the Latin, are particularly prone to develop a pathologic emotionalism, when one of their blood-members has been unfortunate enough to develop a psychosis. Looking after the patient is in my experience a simple matter, compared to bearing the brunt of the "pathologic solicitude" of the relations. In this regard I feel that Dr. Diller has been treated with the utmost consideration by the anxious

and solicitous husband of the psychotic wife. Unless I am literally driven to the point of distraction by members of the patient's family, I am inclined to believe that they are happy to rid themselves of an objectionable member of the group, or that another consultant is handling the case.

I have read somewhere the following paradox: The treatment of an insane individual should commence with members of his family and be directed toward them until the patient has recovered. I am sure all of us will readily recognize the inference that the "pathologic solicitude" of husband or wife, sister or brother, has done a great deal of mischief and has retarded the recovery of the patient on account of injudicious interference and an illogical attitude toward the patient's malady and to those entrusted with its supervision and care.

CHARLES ROSENHECK, M.D., New York.

"THE INTRACAROTID METHOD OF TREATMENT FOR MENINGITIS"

To the Editor:—I was much interested in the article by John A. Kolmer which appeared in THE JOURNAL, April 25. I am glad indeed that some one has taken this logical route of treatment. My criticism is that Dr. Kolmer has made the treatment too formidable by making it a surgical operation. It is perfectly possible, as has been shown by many workers, including Halloran and myself, to put a needle into the carotid artery from the skin, without any section whatever, and to inject medicinal substances quite safely. We utilized this route years ago and recently for the injection of arsphenamine. The technic is safe, there is no damage to the artery, and the arterial puncture can be done in a few minutes.

I believe the carotid artery method opens up a new avenue of great potency for the treatment of meningitis. I hope that Dr. Kolmer and those that follow him will try the direct puncture method rather than the surgical section.

ABRAHAM MYERSON, M.D., Boston.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS and queries on postal cards will not be noticed. Every letter must contain the writer's name and address, but these will be omitted on request.

POSSIBLE RUPTURE OF SPINAL CORD

To the Editor:—In trauma over the lower part of the spine could there be rupture of the cord from concussion alone? Could there be a rupture with clear spinal fluid? Would there be a complete paralysis of the lower extremities? Would you expect and how would you account for a complete paralysis with clear fluid? No displacement of processes and no hematoma or contusion of the soft parts are present. What kind of paralysis would you expect?

W. C. STANBERG, M.D., Charleston, Tenn.

ANSWER.—Concussion, the result of trauma, produces an instantaneous traumatic paralysis due to a momentary and general anemia. A rupture of the cord from concussion alone cannot occur unless the degree of trauma produces a greater injury than the specific reaction resulting from concussion.

A rupture of the cord with clear spinal fluid as a rule does not occur unless at the time of puncture there existed a complete block without seepage of blood and the fluid is withdrawn below the block. Later repeated spinal puncture is recommended.

A complete paralysis of the lower extremities due to trauma over the lower part of the spine is the result of either direct or indirect violence. Direct trauma places the lesion below the tenth dorsal vertebra; with indirect violence the lesion usually occurs at the junction of the most movable and fixed parts, that is, in the region of the cervicothoracic junction of the dorsolumbar location. Complete paralysis of the lower extremities usually occurs as a result of a direct injury rather than of indirect trauma to the cord. However, further data concerning the time of onset of paralysis, reflexes and various sensory disturbances are of value in regard to the location of the lesion.

Complete paralysis with clear fluid is dependent entirely on the type of lesion. If there were no displacement of processes and no hematoma or contusion of soft parts, further information would be of some assistance: first, in what manner was the force applied to the spine? second, was the force sufficient so that movement of the spine went beyond the normal range limit of motion with displacement followed by complete replacement? Roentgen examination assists in verifying fracture, displacement and change in contour of the vertebrae.

The paralysis mentioned may be from anterior extradural hemorrhage. A spontaneous cord hemorrhage (hematomyelia) can occur the same as in any other part of the body during or following trauma, and displacement of a fragmented intervertebral disk with pressure backward against the dura which is not visible or shown in roentgenograms unless the disk is calficied. To verify disk displacement with pressure on the cord, examination with iodized oil is necessary. One must also rule out previous existence of an extradural or intradural lesion or tumor with the additional factor of trauma. Before advising surgical treatment it is always necessary to determine the degree of injury or type of lesion based on the history, complete neurologic examination including roentgenograms, and combined cistern and lumbar puncture with pressure readings and employment of the Queckenstedt test to determine the presence or absence of spinal block.

CHARGES FOR GROUP OPHTHALMOLOGIC EXAMINATIONS IN INDUSTRY

To the Editor:—Where can I find out something about the charges that an oculist would make for looking over the eyes of 300 operators of an industrial plant, where keen eyesight is necessary? This would include a test-card test to discover those with poor sight, and then careful examinations of those with defective vision. The cost of lenses would not be included.

GEORGE A. LEAHEY, M.D., Lowell, Mass.

ANSWER.—Any oculist may, of course, make such charges as he sees fit. However, extensive work by some oculists for industries has led to arrangements of which records are available.

1. The industrial workers, with respect to vision, fall into three classes: (*a*) those whose vision is normal, (*b*) those with defective vision with satisfactory correction, and (*c*) those with defective vision without correction, or without satisfactory correction, or with some other ocular impairment.

2. A preliminary examination may be carried out on the premises of the plant to establish the classifications. Such examinations will establish the acuity of near and distant vision, and the presence or absence of other dysfunctions. Such work may be carried out for about $1.50 per person as a minimum charge.

3. Later, those workers needing refraction or other attention may be examined, preferably at the oculist's office, but may be examined on the plant premises. The charges for this service range from $3 to $10 per person. Since in a group of 300 workers there are likely to be considerable numbers requiring refraction, it is probable that satisfactory work may be obtained at the lower figure specified.

4. In the examinations of any group of 300 workmen there will be disclosed a few unusual conditions calling for extended treatment. Such situations call for special arrangements as to examination and treatment.

In most industrial communities there are persons who may proffer gratuitous examinations of the eyes of factory workers, with the objective of profiting through the purveying of corrective lenses. Such services may not be recommended, as experience has shown many instances of unsatisfactory examinations and unduly high priced spectacles.

INTRACUTANEOUS TEST FOR DETERMINING EFFICIENCY OF CIRCULATION

To the Editor:—In an article entitled "Slipping of the Lower Femoral Epiphysis," by Dr. Joseph J. Kurlander (THE JOURNAL, February 14) there is reference to the intracutaneous injection of physiologic solution of sodium chloride as a diagnostic aid to ascertain patency of the main vessels. Will you kindly describe the test and explain how it is used in the diagnosis of patency in blood vessels? Kindly omit name and address.

M.D., New York.

ANSWER.—The intracutaneous test for determining the efficiency of the arterial circulation in an extremity is performed as follows: With a fine hypodermic needle attached to a tuberculin syringe, 0.2 cc. of physiologic solution of sodium chloride is injected intracutaneously (not subcutaneously). At the base of the great toe the first injection is made, a small wheal being produced. A second wheal is then produced on the dorsum of

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the foot, 4 or 5 inches distant from the first wheal. A third injection is then made on the leg, 4 inches from the second wheal, and thus at 4 inch intervals extending up the leg and thigh additional wheals are made, only 0.2 cc. of the solution being used for each wheal. One then notes the number of minutes for complete absorption. If the main artery is torn or the circulation otherwise damaged there will be a rapid disappearance of the wheals, the time being as rapid as five or seven minutes.

This test is valuable also in arterial diseases, such as thromboangiitis obliterans. With fair accuracy one may determine the site of injury to the vessels by noting the level at which the wheals disappear rapidly. For example, if the femoral artery is torn just above the knee the wheals in the foot and leg will disappear quickly, anywhere from within five to twenty minutes; if, however, at least sixty minutes is required for complete disappearance, one can feel certain that the femoral artery is patent and functioning.

FOOD VALUE OF OLEOMARGARINE

To the Editor:—I am interested in knowing the food value of the average oleomargarine.

M.D., Michigan.

ANSWER.—Margarine is made of animal fats or vegetable oils and accordingly is not a dairy product, although it is usually emulsified in milk and consequently contains small amounts of milk elements. There are two general types of margarines: one, a combination of animal fats and vegetable oils in which oleo oil is predominant; the other, a strictly vegetable oil product in which coconut oil is usually the principal ingredient. The first type is generally termed oleomargarine and the second, nut margarine.

Butter and margarine have approximately the same caloric value. Margarine varies in its vitamin A content. This vitamin may be entirely absent or present in fair amounts according to the ingredients used. Butter, on the other hand, is an excellent source of vitamin A. The essential difference in nutritional value between butter and margarine is that of vitamin content, which is much in the favor of butter.

It is generally accepted that butter is more digestible and better absorbed than other fats. Its low melting point and the ease with which it is emulsified in the process of digestion are frequently given as the reasons. There appears to be little scientific authority for this point of view as it applies to a comparison of margarine and butter. Margarine is manufactured in such a way that the melting point is close to that of butter. The tests that have been made indicate slight differences in the degree of digestibility of the various fats unless they are of high melting point. There is believed to be little difference if any between butter and margarine with respect to digestibility.

AMENORRHEA

To the Editor:—A woman, aged 22, moved to this city about three years ago and ceased menstruating six months after her arrival here. Up to that time her menstrual cycle was perfectly normal and no apparent reason for the abrupt cessation can be discovered. She is perfectly healthy, lively and active, the genitalia and the blood picture are normal, and clinical evidence of an endocrinology is not present. I can find no developmental defects or mental changes. Is restoration of the menstrual cycle necessary to improve the probability of pregnancy in case of marriage? In view of the fact that an endocrine disturbance has occurred different from that produced by operative intervention, is there a possibility of some alteration in her ordinary or sex life if the menstrual cycle is not resumed? Are the new ovarian and pituitary extracts of value in the therapy? I shall deeply appreciate your outlining the therapeutic measures to be attempted. Please omit name.

M.D., Virginia.

ANSWER.—Change of geographic location, which involves chiefly change of climate, not infrequently produces alterations in menstruation; usually there is a cessation of the flow but in some instances the amount of blood lost is excessive. However, in most instances the change in character of the menses manifests itself before six months elapse.

Women in whom the menses cease for no apparent reason are generally assumed to have an endocrine disturbance. Those who menstruate regularly have a much better chance of becoming pregnant than those who do not menstruate at all or only infrequently. However, it is not absolutely essential for a woman to menstruate in order to be able to become pregnant. Conception does occasionally occur in young girls who have not yet begun to menstruate, in women who do not menstruate during the period of lactation and in women who have passed the menopause even for one or more years. In other words ovulation, which is of course essential for conception, may occur without being followed by menstruation. The reverse is also true occasionally: in some instances menstruation may occur without ovulation. Not all authorities accept the latter statement, but it has been definitely proved to exist in monkeys and it was demonstrated in at least one human individual. Women with amenorrhea are not necessarily inferior to those who do menstruate simply because of the absence of bleeding. They rarely show any abnormal symptoms and their sex life remains the same. The only disturbing feature is that these women believe they are subnormal and this thought frequently preys on the mind. They should be assured that they are just as healthy as other women and that menstruation is not absolutely essential for the well being of a woman.

The new ovarian and pituitary preparations are occasionally helpful in reestablishing the menstrual flow. When ovarian preparations are successful they must be repeatedly taken because all they do is that they replace the absent ovarian stimulus to menstruation. While it is a fact that the ovaries control the uterine endometrium, it is also most likely true that the hypophysis dominates the ovaries. Pituitary preparations frequently help restore the menses, especially when hypoplasia of the pelvic organs is present. Other glands of internal secretion play a part in the menstrual cycle, and for this reason administration of thyroid sometimes overcomes amenorrhea and sterility, especially when the patient has a low metabolic rate. The endocrine preparations, however, are by no means uniformly successful in the treatment of amenorrhea. In the case cited, marriage may perhaps have a beneficial effect because of the physiologic periods of hyperemia associated with coitus.

DIAGNOSIS OF ANEURYSM

To the Editor:—I saw recently a man of about 60 who showed, in addition to all the physical signs of double aortic disease (double bruit, Corrigan pulse, blood pressure 170/70, marked enlargement of left ventricle), those of aneurysm or aortic dilatation with pulsatile swelling above the sternum and in the second intercostal spaces on each side. Fluoroscopic examination showed a large heart and a diffuse widening of the whole ascending and transverse portions of the aorta, which pulsated vigorously. There is a history of eight years' duration of embolism into the right eye, which swelled and had to be enucleated. There are no physical signs or symptoms of intrathoracic pressure. There are two unusual features in the case on which I should be glad of your comments: 1. The Wassermann reaction is negative and there is no venereal history. There is, however, a history of severe rheumatic fever in youth. I cannot find any reference in the literature to the latter disease as being a cause of aortitis or aneurysm or evidence as to whether there was any association with it and the embolemia. 2. The patient's complexion is healthy reddish pink. It is said that patients with aortic regurgitation are pallid. Please omit name.

M.D., England.

ANSWER.—A negative history of syphilis in cardiovascular syphilis is not especially infrequent, even when the patient is quite frank and honest in his replies. Figures on the proportion of positive Wassermann reactions in cardiovascular syphilis vary, but if on the average about 75 to 80 per cent are positive, it will not be far from the correct figure.

Aneurysm is almost always on a syphilitic basis, but cases have been reported which have been consequent on rheumatic fever, or emboli in the vessels of the arterial walls.

The color and general appearance of a patient with an aneurysm of syphilitic origin are often quite normal.

DIAGNOSIS OF OBSCURE NEUROLOGIC CONDITION

To the Editor:—I have a patient, a white man, aged 36, a salesman, who for the past five years has complained of sharp pains in the anterolateral surface of the left thigh, from the knee to the hip. The onset is sudden, the pains are intermittent, and they are worse at night. During attacks of pain the skin in this area is sensitive to slight touch. The condition has not materially changed during the five years. Physical examination has been entirely negative except for atrophy of the left thigh of from half an inch to 1¼ inches. The reaction of the skin in this area at examination was normal to light touch, diminished to pain and slightly diminished to temperature variation. The Kahn test of the blood was negative. The blood sugar was 117 mg. per hundred cubic centimeters of blood; urinalysis was normal. There is no apparent anemia. What is the probable diagnosis, prognosis and best course of treatment? Please omit name.

M.D., Florida.

ANSWER.—The data given in this question are not sufficient to lead to a diagnosis. With pain in the region described, hip joint disease or lumbar vertebral changes may be responsible. This dissociated sensory loss suggests the possibility of a hydromyelia or possibly a spina bifida occulta.

Appropriate roentgenologic examination should be made. Spinal puncture may be of value if a careful cell count and total protein and pressure determinations are made.

SYPHILIS WITH COLLAPSE POSSIBLY DUE TO OVERTREATMENT

To the Editor:—I have treated a man with neoarsphenamine, 0.9 Gm., for some time with alternating courses of thiobismol and mercurosal. He is in good health (other than 4+ Kahn reaction) and has never had a reaction until lately. The last course (of ten doses of neoarsphenamine) ended with the fifth, when he had a suggestive nitritoid reaction. I stopped and gave ten of the thiobismol, then yesterday gave 0.3 Gm. I had scarcely finished when he complained of pain in the abdomen and collapsed. He was pulseless for two hours before recovering. I use a small needle and give it slowly. I have been using the Powers-Weightman-Rosengarten product, 0.9 Gm., and have otherwise had good results. I am not going to give him any more arsphenamine but wish to know if it would be advisable to try bismarsen. Kindly omit name.

M.D., Michigan.

ANSWER.—Granted that the man in question, with the 4 plus Kahn test, is receiving neoarsphenamine, 0.3 Gm., and not some other drug, he is probably the victim of an arsphenamine collapse traceable perhaps to impurities, perhaps to sensitivity, gradually developed as a result of unduly prolonged arsenical treatment. It is a general rule in such cases that the blame attaches rather to the technic than to the drug, though war experience proved conclusively that this is not invariably so and that there are lots of arsphenamine and neoarsphenamine which deteriorate in the ampule or are toxic for man even after they have passed the conventional toxicity tests on animals.

This patient should certainly not be given any more arsphenamine or neoarsphenamine. In deciding what further treatment he should have, the question inevitably arises as to just what he is being treated for. If his 4 plus Kahn test is the only evidence of disease that he shows and his treatment has been as prolonged and energetic as the inquiry suggests, in all probability a rest period of indefinite length is now in order. The mere prolongation of treatment for the purpose of reversing an asymptomatic positive serologic test is falling into gradual discredit. On the other hand, if the positive Kahn test is accompanied by an abnormal spinal fluid or by evidence of cardiovascular disease, further treatment should depend on the needs of the individual case. Bismarsen is a satisfactory drug in the treatment of cardiovascular syphilis, but of relatively little use if this patient has neurosyphilis. From the information given in the inquiry it would appear that the patient has not been sufficiently studied and that a decision as to further measures must rest on information obtained from a thorough study of the cardiovascular system and the nervous system especially. The first requisite, of course, is an examination of the spinal fluid. If this is negative, and the cardiovascular system is likewise negative, as stated, a prolonged rest period would seem to be in order.

TONSILLECTOMY ON CHILD WITH PURPURA

To the Editor:—Is it advisable to do a tonsillectomy operation on a child, aged 6 years, who had Henoch's purpura lasting three months or more last summer? A recent attack of tonsillitis precipitated a rash and skin hemorrhages similar to those the patient had during the acute illness.

HERBERT M. KNUDTSON, M.D., Pipestone, Minn.

ANSWER.—Any operation in a case of purpura of any type is fraught with considerable apprehension and danger. It should not be undertaken until all factors of this condition have been thoroughly investigated. It is assumed by some that Henoch's purpura rests on an allergic basis. Therefore careful tests should be made to determine if possible the protein or proteins responsible for the allergy. If the attacks of tonsillitis recur, the clotting time and the bleeding time of the patient should be thoroughly investigated before one undertakes to remove the tonsils. Cooperation with the pediatrician is highly desirable for conditions such as the one mentioned.

TREATMENT OF BURNS

To the Editor:—How best can one treat an old third degree burn of four months' duration which has quite a marked infection in it, and in which large hematomas frequently form? The area is on the hip and thigh in a child, aged 4 years, extending from the groin to the lower third of the thigh. Tannic acid, hot saline packs, dry heat and skin grafts have been persistently tried. Kindly omit name and address.

M.D., Kentucky.

ANSWER.—It is important to clear up the infection. This may be done most satisfactorily by the use of various antiseptic solutions. When smears show a practically sterile granulating surface, the granulations are cut down with a sharp knife or curetted and Thiersch grafts applied, after bleeding is checked. When the defect is not large, the granulation tissue may be covered with narrow strips of adhesive tape, which may be sterilized over a flame. The edges should overlap on the skin. This is covered with gauze and the adhesive tape is changed about twice a week.

For a large surface in which Thiersch grafts repeatedly fail, Riverdin grafts may be used or minute pieces of epithelium may be stuck at intervals into the granulation tissue. Healing will occur more rapidly from these islands of epithelium if kept covered with adhesive tape without the use of any antiseptic.

PHENO-ISOLIN

To the Editor:—I am not enough of a chemist to understand fully the attached letter, which I have received from the Scientific Manufacturing Company, extolling a preparation called Pheno-Isolin. Is there any merit from a chemical standpoint to their product Pheno-Isolin?

A. D. L., M.D., Chief Surgeon, Baltimore.

ANSWER.—In such advertising literature as is in the A. M. A. files, the Scientific Manufacturing Company, Inc., has not made a candid declaration of the composition of Pheno-Isolin. A letter sent by the manufacturers to a physician contains the statement:

"The chemical composition of Pheno-Isolin is practically identical with that of chaulmoogra oil. The chief constituents of Pheno-Isolin are therefore Glycerides of chaulmoogric acid and hydrocarpic acid, also isolinic acid and abetic acid.

"75% of Pheno-Isolin is really a synthetic chaulmoogra oil, without any of the irritating properties which are present in chaulmoogra oil. This combination is brought about by a condensation product of the phenols with thymol, in solution in vegetable oil."

We know of no scientific data that substantiates the claimed composition of the product. The product is advertised blatantly under such catchlines as "How to Prevent and Destroy Infection." One, H. J. Force, Ph.G., seems to be the chief promulgator of the product; "modestly" he asserts that he is well qualified by virtue of having worked for twenty-two years as chief chemist for the Delaware, Lackawanna & Western Railroad and before that for thirteen years in chemical, drug and bacteriologic work in New York City.

The exploiter claims that "The most important reason for the wonderful results obtained by Pheno-Isolin in preventing and destroying infection is entirely overlooked by any other preparation. Bacteria give off a powerful poison which is called toxin. This toxin is a powerful poison, and in cases where infection exists, kill flesh which is turned into food for bacteria, and is important to their growth. Pheno-Isolin is made to neutralize these toxin poisons, making them harmless." Another unusual example of "argument" is taken from the advertising: "Use the antitoxin on a piece of gauze; it will remove grease and dirt much better than soap and water. You can scrub the bacteria in, but you cannot scrub them out." Pheno-Isolin is recommended for wounds, cuts, bruises, sprains and for almost anything for which an antiseptic could conceivably be used.

Perhaps the acme of absurdity is the following gem culled from material sent to a physician as scientific evidence for the value of Pheno-Isolin:

". . . . . .

"We recently had a mule caught between a locomotive and the rock rib of a haulage road and seriously cut and bruised on legs and body. Our stableman advised shooting the mule, saying that in his opinon there was not much chance for recovery. However, out of pure sentiment, because the mule was a favorite with all the men at the mine, we decided against the stableman, and started at once to doctor the mule, using Pheno-Isolin on the cuts and bruises. In one week, the animal could walk all around the yard, and in three and one-half weeks, was at work again."

TREATMENT OF FUNGUS INFECTION OF HANDS

To the Editor:—J. M., a man, aged 33, Mexican, who works in a cement plant, shoveling coal all the time, has had for the last year what appears to be necrosis of the skin on the palmar surface of his hands; the skin scales and forms deep cracks on the fingers, which bleed and cause him considerable distress. There is a distinct line of the demarcation on the edges of each finger and from this line on, the skin has a bluish hue. The palmar surface is hard and thin and it scales on both hands and fingers. As the man is poor and cannot afford to go to a specialist, will you kindly answer me and let me know what is your opinion as to probability of the diagnosis and treatment of this case?

SIEG REICH, M.D., Indiana Harbor, Ind.

ANSWER.—This type of skin lesion of the hand is not a specific result of any one occupation but occurs in many. Workers in lime, cement, brickyards and the like exhibit it. In part, the condition may be due to repeated trauma from work materials. Also, in part, these conditions are prone to result from fungus invasions. Scrapings of skin taken from the most active area of inflammation will frequently reveal, on microscopic examination, spores or other evidences of fungus growth. Recently it has been established that fungus infection in one

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portion of the body may give rise to lesions in remote places in which no fungi may be found. These are chemical lesions having some relation to anaphylaxis.

While it is preferable that this patient have the services of a dermatologist, some good may be accomplished by changing the occupation if practicable, by wearing protective garments to lessen repeated trauma from work, by the application of an emollient containing 10 per cent zinc oxide, and by the avoidance of harsh substances in cleaning, such as gasoline and abrasive soaps. X-ray exposures appropriate to skin lesions are helpful in some cases. Equal portions of U. S. P. tincture of iodine and glycerin aid in some resistant forms.

DOSAGE OF PHENOBARBITAL FOR INFANT

To the Editor:—Several times recently I have seen or heard references to the use of phenobarbital in infants with true colic, with pyloric stenosis, and with unexplained vomiting in the first week of life. Nowhere have I seen the dosage given. Can you tell me how to calculate the dosage, or tell me where I may find this information? If you print this, kindly omit my name.

M.D., Iowa.

ANSWER.—The following modification of Cowling's rule is probably the best for the prescriber in the metric system. According to it the adult age is taken as 25, and each year that the child has commenced as an even part of 25. Thus, a child one year old (having commenced its second year) would require two twenty-fifths of the adult dose. Instead of dividing by 25, one may more conveniently multiply by 4 and divide by 100. As Cowling's rule errs somewhat in the direction of apportioning too small a dose, the dosage for infants under 1 year may safely be estimated by dividing the result by 10 (instead of 12). The adult's dose of phenobarbital varies from 0.03 Gm., the average dose of the U. S. Pharmacopeia, to the maximum single dose of 0.4 Gm. (!) or maximum daily dose of 0.8 Gm. (!). As the average U. S. P. dose is rather too small, and 0.1 Gm. probably more nearly represents an average efficient dose, the dose for a one year old might be calculated at 8 mg. $\frac{(0.1 \times 2 \times 4}{100} = 0.008)$. A child one month old might safely be given 0.8 mg. and a child one week old 0.2 mg. That the doses thus calculated are at the lower limit may be gathered from the following statements of empirical dosage found in literature: for infants, 0.025 Gm.; for 3 year old children, 0.03 Gm.; for 5 year old children, 0.06 Gm.

RINGWORM INFECTION OF THE TOES

To the Editor:—I have a young man with a condition of the foot as follows: Some months ago he noticed that the skin between his little and fourth toe began to turn white and flake off. This has spread to the sides of both toes and between others. This skin is pearly white, glistens, and flakes off. The toes have no pain in them and are warm. He has no syphilis or disease of the sympathetic system that I am able to recognize. Please give me some idea as to diagnosis, prognosis and especially treatment.

J. PAUL JONES, M.D., Camden, Ala.

ANSWER.—Probably the condition described is intertriginous or macerated eczematoid ringworm infection. This condition is, as a rule, difficult to cure, and reinfections are common. A wide variety of parasiticidal applications is employed in the treatment of this disorder, salicylic acid as used in Whitfield's ointment probably being the nearest approach to a standard treatment. Weak solutions of iodine, Castellani's carbolfuchsin paint, and potassium permanganate solutions are likewise useful.

SCALES IN SCARLET FEVER AS SOURCE OF INFECTION

To the Editor:—In the book "Preventive Medicine and General Hygiene," prepared by the staff of the department of preventive medicine and public health of the University of Minnesota, 1926, in discussing the sources of infection of scarlet fever, there is found the statement: "The epidermal scales, contrary to the older beliefs, do not contain the causative agent of the disease and are of no danger as a source of infection." This is the stand I took in a recent discussion with other practitioners and was ridiculed. Will you kindly advise me whether or not the epidermal scales in scarlet fever are a source of infection? Please omit name.

M.D., North Dakota.

ANSWER.—Bacteriologic examination of the epidermal scales in scarlet fever fails to show the presence of hemolytic streptococci as a usual thing. The failure to find scarlet fever organism in the scales in most cases would indicate that when they are found they are the result of contamination with nose, throat or ear discharges. They are therefore not a usual source of infection, although such a source is always a possibility. It so happens that the completion of desquamation usually takes about a month and the same time usually suffices to obtain negative nose and throat cultures, although sometimes the streptococci of scarlet fever disappear much earlier and sometimes much later.

DISINFECTANTS AND DEODORANTS

To the Editor:—Will you kindly forward me the names of some effective disinfectants and deodorants?

G. S. FOSTER, M.D., Manchester, N. H.

ANSWER.—The question is one that cannot be answered directly. The type of disinfectant selected depends on the use to which it is put; whether in the eye, on an open wound, or to scrub floors. There are some reliable preparations in the U. S. Pharmacopeia, which are also listed in "Useful Drugs." The more recent preparations of a proprietary nature are found in New and Nonofficial Remedies. Disinfectants not found in any of these publications either have not stood the test of time or have had claims made for them which are excessive and unwarranted.

A deodorant differs from a disinfectant in that it destroys odors generally caused by bacterial decomposition. Deodorants generally have little action on bacteria themselves.

PRESCRIBING SANTONIN

To the Editor:—I am interested in a combination of drugs, including santonin, for use as a vermifuge, particularly in combination with calomel.

ABRAHAM PRESSMAN, M.D., New York.

ANSWER.—The National Formulary gives a formula for Compound Tablets of Santonin, each containing 0.03 Gm. (or ½ grain) of santonin and 0.03 Gm. (or ½ grain) of mild mercurous chloride. These are pleasant enough to be eaten by children like candy. They are, indeed, so pleasant that the supply of them must be carefully guarded lest a child poison itself by mistaking them for candy.

TOXICITY OF PHENOL AND IODINE IN VARIOUS SOLVENTS

To the Editor:—Will you kindly advise what the degree of toxicity of the following would be: Equal parts of camphor, phenol, tincture of iodine and glycerin?

A. A. SOULE, M.D., Klamath Falls, Ore.

ANSWER.—The local caustic effect of phenol as well as of iodine is removed and the irritant action greatly lessened by applying these bodies in good solvents, in accordance with the general law that "chemical agents do not readily exchange a good solvent for a poor solvent." Camphor, alcohol and glycerin are all better solvents for phenol and iodine than are the tissue fluids. The solvents do not, however, lessen the general or systemic effects of poisons, so that phenol dissolved in alcohol is quite as toxic after absorption as phenol in any other medium.

LOCAL ANESTHETIC FOR CIRCUMCISION OF CHILD

To the Editor:—Will you kindly give me some advice as to what would be a suitable anesthetic to give a boy, aged 14 months, during circumcision? I do not have nitrous oxide available. Is procaine hydrochloride, locally, to be recommended? If so, what is the site of injection? Kindly omit name, if printed.

M.D., Nebraska.

ANSWER.—Children make difficult subjects for local anesthesia. Even with a perfect and painless technic it is usually difficult to control a child emotionally in the operating room. The operation should not require more than ten minutes. Gas is not a suitable anesthetic for so young a child; ether still remains the safest general anesthetic. Only a small amount is required for a young child and recovery from a short ether anesthetic requires but an hour or two. Ether is preferable to local anesthesia unless the operator is experienced in the use of the latter.

DOSAGE OF SODIUM THIOSULPHATE

To the Editor:—An article in THE JOURNAL, February 21, entitled "Mercuric Chloride Poisoning with Recovery Following Use of Sodium Thiosulphate," states that 10 cc. of sodium thiosulphate was given intravenously every eight hours for five doses. Sodium thiosulphate, being a crystal, is not measured in terms of cubic centimeters. I should like to know the dosage used in this case. Was it 10 cc. of a 5 per cent solution?

BUDD ROBBINS, M.D., Hanford, Calif.

ANSWER.—Sodium thiosulphate is preferably employed in doses of 10 cc. of the 5 per cent solution; and it is probable that it was used in this strength in the case cited.

Council on Medical Education and Hospitals

COMING EXAMINATIONS

ALABAMA: Montgomery, July 14-17. Sec., Dr. J. N. Baker, 519 Dexter Ave., Montgomery.

AMERICAN BOARD FOR OPHTHALMIC EXAMINATIONS: Denver, July 23. Sec., Dr. William H. Wilder, 122 S. Michigan Ave., Chicago.

CALIFORNIA: *Reciprocity Meeting.* Los Angeles and San Francisco, June 17. *Regular.* San Francisco, July 6-9. Sec., Dr. Charles B. Pinkham, 420 State Office Bldg., Sacramento.

COLORADO: Denver, July 8-10. Sec., Dr. Wm. W. Williams, 224 State Capitol Bldg., Denver.

CONNECTICUT: *Regular* (written and endorsement, respectively), Hartford, July 14-15 and July 28. Sec., Dr. Thomas P. Murdock, 147 West Main St., Meriden. *Homeopathic.* New Haven, July 14. Sec., Dr. E. C. M. Hall, 82 Grand Ave., New Haven.

DISTRICT OF COLUMBIA: *Basic Science.* Washington, June 29-30. *Regular.* Washington, July 13-14. Sec., Dr. W. C. Fowler, District Bldg., Washington.

FLORIDA: Jacksonville, June 15-16. Sec., Dr. Wm. M. Rowlett, 812 Citizens Bank Bldg., Tampa.

ILLINOIS: Chicago, June 23-25. Supt., Mr. Paul B. Johnson, Springfield.

INDIANA: Indianapolis, June 23-25. Sec., Dr. Wm. R. Davidson, 413 State House, Indianapolis.

KANSAS: Topeka, June 16. Sec., Dr. C. H. Ewing, Larned.

MAINE: Augusta, July 7-8. Sec., Dr. Adam P. Leighton, Jr., 192 State St., Portland.

MARYLAND: Baltimore, June 16-19. *Regular.* Sec., Dr. Henry M. Fitzhugh, 1211 Cathedral St., Baltimore. *Homeopathic.* Baltimore, June 16-17. Sec., Dr. John A. Evans, 612 W. 40th St., Baltimore.

MASSACHUSETTS: Boston, July 14-16. Sec., Dr. Frank M. Vaughan, 144 State House, Boston.

MICHIGAN: Ann Arbor and Detroit, June 15-17. Sec., Dr. F. C. Warnshuis, 1010 Maccabee Bldg., Detroit.

MINNESOTA: Minneapolis, June 16-18. Sec., Dr. E. J. Engberg, 524 Lowry Bldg., St. Paul.

NATIONAL BOARD OF MEDICAL EXAMINERS: Class A Medical Schools having five or more applicants, June 23-25. Ex. Sec., Mr. E. S. Elwood, 225 South Fifteenth St., Philadelphia, Pa.

NEW JERSEY: Trenton, June 16-17. Sec., Dr. James J. McGuire, 28 West State St., Trenton.

NEW YORK: Albany, Buffalo, New York, Syracuse, June 22-25. Chief, Mr. H. J. Hamilton, Room 315, State Education Bldg., Albany.

NORTH CAROLINA: Raleigh, June 15. Sec., Dr. John W. MacConnell, Davidson.

NORTH DAKOTA: Grand Forks, July 7-10. Sec., Dr. G. M. Williamson, Grand Forks.

OKLAHOMA: Oklahoma City, June 11-12. Sec., Dr. J. M. Byrum, Shawnee.

OREGON: Portland, July 7-9. Sec., Dr. C. J. McCusker, 1014 Medical Dental Bldg., Portland.

PENNSYLVANIA: *Written.* Philadelphia and Pittsburgh, July 7-9. *Practical.* Philadelphia, July 10-11. Sec., Dr. Charles D. Koch, Harrisburg.

RHODE ISLAND: Providence, July 2-3. Director, Mr. Lester A. Round, Room 319, State Office Bldg., Providence.

SOUTH CAROLINA: Columbia, June 23. Sec., Dr. A. Earle Boozer, 505 Saluda Ave., Columbia.

SOUTH DAKOTA: Custer, July 21. Dir., Dr. H. R. Kenaston, Bonesteel.

TENNESSEE: Knoxville, Memphis and Nashville, June 16-17. Sec., Dr. Alfred B. DeLoach, Medical Arts Bldg., Memphis.

TEXAS: Austin, June 23-25. Sec., Dr. T. J. Crowe, 918-919 Mercantile Bank Bldg., Dallas.

UTAH: Salt Lake City, June 30-July 1. Director, Mr. S. W. Golding, 412 State Capitol Bldg., Salt Lake City.

VERMONT: Burlington, June 17-19. Sec., Dr. W. Scott Nay, Underhill.

VIRGINIA: Richmond, June 23-26. Sec., Dr. J. W. Preston, 720 Shenandoah Life Bldg., Roanoke.

WASHINGTON: *Basic Science.* Seattle, July 9-10. *Regular.* July 13-14. Dir., Mr. Charles Maybury, Olympia.

WEST VIRGINIA: Harpers Ferry, July 7-9. Sec., Dr. W. T. Henshaw, Charleston.

WISCONSIN: Milwaukee, June 30-July 2. Sec., Dr. Robert E. Flynn, 315 State Bank Bldg., LaCrosse.

Maine March Examination

Dr. Adam P. Leighton, Jr., secretary, Maine Board of Registration of Medicine, reports the written examination held at Portland, March 10-11, 1931. The examination covered 10 subjects and included 100 questions. An average of 70 per cent was required to pass. Nine candidates were examined, all of whom passed. Three candidates were licensed by reciprocity. The following colleges were represented:

College	PASSED	Year Grad.	Per Cent
Boston University School of Medicine		(1919)	77.5
Tufts College Medical School		(1912) 80, (1930) 83.8, 85.8,	86.8, 89.4
University of Tennessee College of Medicine		(1898)	75.1
McGill University Faculty of Medicine		(1930)	80.3
University of Montreal Faculty of Medicine		(1924)	76.9

College	LICENSED BY RECIPROCITY	Year Grad.	Reciprocity with
Boston University School of Medicine		(1913)	New Hamp.
Vanderbilt University School of Medicine		(1923)	Tennessee
Wisconsin College of Physicians and Surgeons		(1903)	Wisconsin

Wyoming February Examination

Dr. W. H. Hassed, secretary, Wyoming State Board of Medical Examiners, reports the written and practical examination held at Cheyenne, Feb. 2, 1931. The examination covered eleven subjects. An average of 75 per cent was required to pass. Two candidates were examined, both of whom passed. Two candidates were licensed by reciprocity. The following colleges were represented:

College	PASSED	Year Grad.	Per Cent
Keokuk Medical College		(1898)	75
Columbus Medical College		(1878)	75

College	LICENSED BY RECIPROCITY	Year Grad.	Reciprocity with
Tulane University of Louisiana School of Medicine		(1928)	Louisiana
Osteopath *			Missouri

* Licensed to practice osteopathy and surgery.

Arizona April Examination

Dr. B. M. Berger, secretary, Arizona State Board of Medical Examiners, reports the written examination held at Phoenix, April 7-8, 1931. The examination covered 10 subjects and included 100 questions. An average of 75 per cent was required to pass. Two candidates were examined, both of whom passed. Four candidates were licensed by reciprocity. The following colleges were represented:

College	PASSED	Year Grad.	Per Cent
University of Arkansas School of Medicine		(1929)	76.7
University of Kansas School of Medicine		(1928)	86.4

College	LICENSED BY RECIPROCITY	Year Grad.	Reciprocity with
Rush Medical College		(1922)	Illinois
University of Louisville School of Medicine		(1913)	Kentucky
Univ. of Maryland Sch. of Med. & Coll. of P. & S.		(1905)	Idaho
University of Oklahoma School of Medicine		(1915)	Oklahoma

Book Notices

MODERN SURGERY, GENERAL AND OPERATIVE. By John Chalmers DaCosta, M.D., LL.D., F.A.C.S., Samuel D. Gross Professor of Surgery, Jefferson Medical College, Philadelphia. Assisted by Benjamin Lipshutz, M.D., F.A.C.S., Surgeon to the Mount Sinai Hospital. Tenth edition. Cloth. Price, $10. Pp. 1404, with 1050 illustrations. Philadelphia: W. B. Saunders Company, 1931.

This edition has been brought down to date from the title page through to the z's in the index. As DaCosta says, the author in revising a book "must add the new if it seems to him to be true . . . and must have the courage to omit the new if it seems erroneous." He must not be "caught in the subtle trap of fashion in surgery and must be able to hold tenaciously to the old which seems to be correct." With these tenets in mind, a revision of a classic textbook might have the advantage over a completely modern textbook in surgery that an older experienced surgeon with a keen open mind has over the novitiate. To hold tenaciously to the old just because it is old is obviously wrong, but to hold tenaciously to the old which in the course of long experience seems to be correct is an essential to progress. Since 1894, DaCosta's "Modern Surgery" has been one of the classics in the field of surgical literature. Two generations have grown up with this as their textbook. One marvels at the way in which it has kept pace with modern teachings. The opening chapters deal with general subjects, such as inflammation, tuberculosis and syphilis, as a rule no longer found in modern surgical works. The inclusion of these topics has occasionally been criticized as belonging in special volumes of their own. These criticisms may perhaps be just and yet there are few surgeons who cannot read the first several hundred pages of DaCosta without profiting greatly thereby. The form and arrangement are similar to those of past editions. Many of the illustrations have survived the repeated printings. Much of the content is similar to the earlier publications, showing that there is a great deal of the old that has proved to be correct. On the other hand, even the casual observers would be struck by the innumerable references to articles in the literature of 1928, 1929 and 1930.

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PYE'S SURGICAL HANDICRAFT: A MANUAL OF SURGICAL MANIPULATIONS, MINOR SURGERY, AND OTHER MATTERS CONNECTED WITH THE WORK OF HOUSE SURGEONS AND SURGICAL DRESSERS. Edited by H. W. Carson, F.R.C.S., Lecturer on Abdominal Surgery, North-East London Post-Graduate College. Tenth edition. Cloth. Price, $7. Pp. 641, with illustrations. New York: William Wood & Company, 1931.

This presents the details of surgical work usually met by hospital resident surgeons in the light of a highly skilled handicraft. The arrest of hemorrhage is considered in detail, including internal hemorrhage. The description of blood transfusion is followed by the treatment of shock and collapse. The discussion on the use of splints and bandaging and a variety of minor injuries is followed by the treatment of ordinary fractures and dislocations. The dressing and the aseptic precautions necessary in the treatment of wounds, burns and infections is taken up in considerable detail. A new section is added on venereal diseases. The emergency and operative treatment of injuries to the urethra is excellent. Certain chronic diseases, including tuberculous joints, with the use of ambulatory splints, are outlined. The technic of passing the stomach tube, bougies and the details of various examinations necessary in diagnosis are described. The methods of examination and treatment of ordinary diseases and injuries of the eye, ear, nose, throat and esophagus are described rather extensively. There is a special chapter on abdominal injuries, coma and poisoning. Various types of anesthesia are discussed, but accepted methods are quite different in this country. There is an important although brief chapter on preoperative and postoperative care, including examination of the urine. The use of the x-rays in diagnosis and interpretation is given some space. The work includes a discussion of fundamental surgical conditions but its chief value is the clear description of manipulative technic, which is especially valuable for one who must conduct an unusual examination for the first time or meet surgical emergencies. Numerous illustrations supplement the text and add greatly to its value.

GESCHLECHTSKRANKHEITEN. Von Professor Dr. Robert Otto Stein. Lehmanns medizinische Lehrbücher, Band III. Second edition. Cloth. Price, 10 marks. Pp. 219, with illustrations. Munich: J. F. Lehmanns Verlag, 1930.

This is devoted entirely to venereal diseases, including balanitis, inflammatory phimosis, paraphimosis, pediculosis pubis and their associated maculae ceruleae, condyloma acuminatum, herpes genitalis, molluscum contagiosum, and acute ulceration of the vulva, as belonging to venereal diseases in the wider sense; while chancroid, syphilis, lymphogranulomatosis inguinalis and gonorrhea are described as the four venereal diseases in the stricter interpretation of the term. The illustrations are color reproductions of Dr. Henning's well known moulages. The text expresses tersely the more recent points of view regarding the various pathologic conditions described. The legends to the illustrations are excellent and call attention to the more important diagnostic characteristics of each case. The book is well indexed and should prove of value to all interested who read German medical literature.

MARGARINE AS A BUTTER SUBSTITUTE. By Katharine Snodgrass, Research Associate, Food Research Institute. Fats and Oils Studies, No. 4. Cloth. Price, $3. Pp. 333, with illustrations. Stanford University: Food Research Institute, 1930.

This research in the production, distribution and consumption of margarine is the fourth of a series of studies on fats and oils by the Food Research Institute. Margarine, an important animal fat or vegetable oil substitute for butter, seriously affects the economic status of butter and, indirectly, the dairy industry. The study thoroughly investigates a fifty-year struggle between the dairy and margarine industries for the privilege of supplying the American public a material portion of its fat needs in the diet schedule. It involves study of the legislative history and a consideration of technical factors and of nutrition by margarine as well as economic developments; also the significance of the competition between margarine and butter, historically, as a legal question, from the nutritional point of view, and finally as a matter of economic, agricultural and political policy. The investigation is entirely unbiased. The subject matter may be used for making a case for the dairy industry or for the margarine industry according to the interests of the partisan groups. Both sides have valid claims and arguments. It is the opinion of the author that, since margarine fills a proper need of consumers, its manufacture should not be unnecessarily throttled even to protect so important an industry as dairying. The consumer is entitled to consideration as well as these two industries. What constitutes a proper balance of privileges between the two industries is difficult to decide. Society is not so simple that the rights of industries can be nicely adjusted to theoretical considerations and be successful in practice. Legislative adjustments do not bring about anticipated results. It would seem that the dairy industry must accept margarine as a competitive article produced by the art of modern invention and manipulation, as is the case in other manufacturing industries. Many long established industries are demoralized because of new developments. The dairy industry must protect its future by opening up new outlets for its products through research. This margarine research of the Food Research Institute covers the field of its study with due thoroughness and completeness and apparently leaves no unsatisfied issues.

A STUDY IN NUTRITION: AN INQUIRY INTO THE DIET OF 154 FAMILIES OF ST. ANDREWS. By E. P. Cathcart and A. M. T. Murray. Assisted by M. Shanks. Medical Research Council, Special Report Series No. 151. Paper. Price, 1s. Pp 60. London: His Majesty's Stationery Office, 1931.

This concerns the nature of diets consumed by families as related to different levels of income, "social class" and occupation. An attempt has also been made to determine the relations between the "capacity" of the parents and the family diet as well as between the physical condition of the children and the rations provided. The data are presented in fifty-one tables, which are largely self-explanatory. The authors evidently concentrated their attention on the energy value of the diets, because practically the only dietary features that are given consideration are the total calories and the distribution of these calories among protein, carbohydrate and fat. It is unfortunate that this is the case. The value of the investigation is therefore much less than that of similar studies by Sherman of representative American family dietaries and that of Adolph dealing with the rations of the people of northern China. In view of the great advance in knowledge of the importance of other factors in the diet besides calories, investigators pursuing such a study as this might well endeavor to determine how the income and calories are distributed among different categories of foods, such as milk, cereals, meats and vegetables. If this were done, the adequacy or shortcomings of the diets might be judged more satisfactorily. It is possible that these authors have such data at hand; if so, it is to be hoped that another report supplementary to the present one will soon be forthcoming.

A HANDBOOK ON DISEASES OF CHILDREN INCLUDING DIETETICS AND THE COMMON FEVERS. By Bruce Williamson, M.D., M.R.C.P., Physician to the Royal Northern Hospital, London. Leather. Price, $3.50. Pp. 290, with 50 illustrations. New York: William Wood & Company, 1931.

This is a small handbook intended for the undergraduate as well as for the postgraduate student of pediatrics. The author has endeavored to render a short but complete account of this subject, necessitating the barest outline form in places. The book begins with comparatively long discussions on the respiratory system and disorders of the heart and circulation, and the final chapters deal with the normal infant and with infant feeding. This reversal of the usual order of sequence in a handbook of pediatrics seems to minimize the importance of infant growth and feeding and might be disadvantageous from the point of view of teaching.

SURGICAL NURSING. By Hugh Cabot, M.D., C.M.G., F.A.C.S., Senior Consultant, Mayo Clinic, Rochester, Minn., and Mary Dodd Giles, B.S., R.N., Associate Professor of Nursing Education, Vanderbilt University. Cloth. Price, $3. Pp. 428, with 123 illustrations. Philadelphia: W. B. Saunders Company, 1931.

Believing that the nurse should be thoroughly familiar with the underlying principles of the work of the surgeon to enable her to prepare for and anticipate the instructions she is likely to receive, the authors have written an excellent little book. It considers briefly and concisely the principles of general and urologic surgery together with the nursing care and procedures required in each special disease process described and is essentially a textbook of surgery for nurses. While much of the

material may be of little direct value to the nurse, it will nevertheless aid her in a better understanding of the nursing care required. The book is written in a clear, simple and easily readable style. The facts are accurate, down to date, well organized, and beautifully illustrated. This contribution fully meets the advancing standards in nurses' training and should prove not only useful but of value as a textbook to the student and a guide to the instructor.

THE METABOLISM OF TUMOURS: INVESTIGATIONS FROM THE KAISER WILHELM INSTITUTE FOR BIOLOGY, BERLIN-DAHLEM. Edited by Otto Warburg, Kaiser Wilhelm Institute for Biology, Berlin-Dahlem. Translated from the German edition, with accounts of additional recent researches by Frank Dickens, M.A., Ph.D., Whole-time Worker for the Medical Research Council Courtauld Institute of Biochemistry Middlesex Hospital, London. Cloth. Price, $12. Pp. 327, with illustrations. New York: Richard R. Smith, Inc., 1931.

Translations of twenty-four articles appearing first in German periodicals and all but a few in the *Biochemische Zeitschrift*, with a preface and an introduction by Professor Warburg, make up this volume. A few of the earlier papers included in the German edition are omitted. Four of the articles published in 1908 to 1915 form part I. They report studies of the respiration in ova of sea urchins, human erythrocytes, and the red blood cells of frogs, birds and rabbits. The remaining twenty (1923-1929) are studies of the metabolism of tumors. No change has been made in reproducing the original articles other than translation and a few additional footnotes. Improved methods of growing tissue and of maintaining tumor tissue alive over long periods outside the body have naturally brought about investigations of their metabolism under such controlled conditions. Beginning less than a decade ago, such studies are now under way in many institutes throughout the world. To some who are occupied with these questions the opportunity to read these articles in English will be a boon, because they are mainly devoted to methods, to apparatus and to the necessary mathematical treatment of observations.

DIETETICS IN WARM CLIMATES INCLUDING FOODSTUFFS, THEIR ANALYSES AND RÔLE IN DISEASE. By J. Neil Leitch, M.D., B.S., M.R.C.S., Pathologist, West African Medical Service. With an introduction by His Excellency Brigadier-General Sir J. A. Byrne, K.C.M.G., K.B.E., C.B., Governor, Commander-in-Chief and Vice-Admiral of the Colony and Protectorate of Sierra Leone. Cloth. Price, 25/-. Pp. 486, with illustrations. London: Harrison & Sons, Ltd., 1930.

The problems of the tropics are distinctive. The tropical food problems are special because of the difficulty of keeping food under proper sanitary conditions and because of the special foodstuffs used by people who inhabit the tropics. The various chapters of this volume discuss the physiology of tropical dietetics, the use of salts, vegetables and condiments, tropical dietaries and tropical foodstuffs on which these dietaries are based. It provides an analyses of various foodstuffs; it considers the diseases associated with defective dietaries and the complications that arise from insect pests and means for sanitary control. The concluding chapter deals with the future. There are many pages of handsome illustrations. An astounding feature of the volume is the fact that it is interleaved with advertisements for various food products, separating the different chapters. This serves greatly to diminish the respect that might otherwise be accorded it as a useful scientific contribution.

INFANT FEEDING IN GENERAL PRACTICE. By J. V. C. Braithwaite, M.D., M.R.C.P., Physician, and Physician in Charge of Children Outpatients, Leicester Royal Infirmary and Children's Hospital. With a foreword by H. C. Cameron, M.A., M.D., F.R.C.P. Cloth. Price, $1.75. Pp. 140. New York: William Wood & Company, 1930.

This is an excellent manual on infant feeding and the nutritional disorders of infancy, written especially for English general practitioners by one of their colleagues. In the foreword H. C. Cameron points out the differences in the training of students and general practice of pediatrics as carried out in England and in the United States. The manual offers to English practitioners a clearly written, concise and lucid description of the nutritional disorders of infancy, following the Finkelstein classification. The exposition of the nutritional disorders will probably be found superior to anything that has yet been written on this subject in an English textbook or treatise on the diseases of infancy.

MEDICAL JURISPRUDENCE: A STATEMENT OF THE LAW OF FORENSIC MEDICINE. By Elmer D. Brothers, B.S., LL.B., Lecturer on Medical and Dental Jurisprudence in John Marshall Law School and on Historical Development of the Federal Constitution. Third edition. Cloth. Price, $3.50. Pp. 309. St. Louis: C. V. Mosby Company, 1930.

The first edition appeared in 1914. The fact that a third edition has been called for is in itself evidence that the book is serving a useful purpose. The author, a lawyer who for many years has lectured on medical jurisprudence, has devoted himself primarily to an exposition of the relations of law to medical matters. He has undertaken to discuss medical subjects only when such a discussion has been necessary to the exposition of legal matters or to illustrate the application of legal principles. Physicians and medical students will find this book a useful source of information when puzzled by the more elementary legal problems that confront them, provided their problems are not grave enough to require counsel. This book does not purport to take the place of a lawyer when a lawyer is needed. Its value would be enhanced by a more extensive discussion of the duties of physicians with respect to reports of deaths, births and communicable diseases and other required reports, and of the rights and duties of physicians under federal and state narcotic and liquor laws.

CALCIUM METABOLISM AND CALCIUM THERAPY. By Abraham Cantarow, M.D., Assistant Demonstrator of Medicine in the Jefferson Medical College, Philadelphia. With a foreword by Hobart Amory Hare, B.Sc., M.D., LL.D., Professor of Therapeutics, Materia Medica and Diagnosis in the Jefferson Medical College, Philadelphia. Cloth. Price, $2.50. Pp. 215. Philadelphia: Lea & Febiger, 1931.

It is no insignificant task to condense and organize the enormous mass of available data on the physiologic chemistry of calcium. In this "attempt to present in a practical manner the factors involved in the metabolism of calcium, normal and abnormal," the author has been distinctly successful. The first part deals with normal calcium metabolism; the extensive modern literature has been thoroughly canvassed and carefully digested. The pertinent facts concerning the requirement of this element, its excretion, the relations in the blood and the functions in the body are cogently and critically presented. In the second part, which deals with abnormal calcium metabolism, the argument is not so forceful, owing largely to the paucity of experimental facts on which to base the discussion. The author purposely avoids more than a brief consideration of the extensive literature on rickets. The third part deals with calcium therapy; here the author emphasizes the empirical nature of some of the clinical uses of this element, and his own extensive practical experience gives authority to his conclusions. In this section the repeated use of the trade name for a certain salt of calcium rather detracts from the dignity of the book. There is an excellent bibliography and index. This treatise constitutes a clear, succinct discussion of the physiologic importance of calcium, the indications for its therapeutic use and the lack of foundation for some of its alleged efficacy.

QUATRE CENTS CONSULTATIONS MÉDICALES POUR LES MALADIES DES ENFANTS. Par Dr. Jules Comby, médecin honoraire de l'Hôpital des Enfants-Malades. Ninth edition. Paper. Price, 36 francs. Pp. 551. Paris: Masson & Cie, 1930.

Comby has written the pediatrician's vade mecum. It is an alphabetical arrangement of pediatric therapeutics. Treatment is detailed in numbered paragraphs followed by brief descriptions of the clinical entities in smaller type. The material is decidedly useful. The alert physician will appreciate that, aside from broad general principles, details of treatment differ with individuals, institutions, localities and countries. It is surprising, therefore, that so much of the author's treatment meets the approval of American physicians. A few comparisons may be made. From the medical point of view we have shown more resourcefulness in the treatment of pneumonia by means of the oxygen tent and oxygen chamber. There is no mention of skin testing in allergic conditions such as asthma and eczema. It is gratifying to find the author's recommendation of spinal puncture in epileptic states. On the other hand, the rôle of heredity in this condition is denied. Migraine should be mentioned among the hereditary factors in epilepsy. The accusation that scurvy is common in North America because of the widespread use of artificial

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formulas is amusing. Another misconception concerns the Dick "brothers" of scarlet fever fame. Surgically, Comby's group does not share our attitude toward the acutely inflamed appendix; namely, the advisability of its removal on diagnosis instead of waiting for the interval. Likewise, early surgical treatment of spina bifida gives a less completely hopeless future than is ordinarily painted. The importance of fluid restoration in burns is not sufficiently stressed. It might be mentioned that mere opening of the abdomen seems helpful in tuberculous peritonitis when laparotomy is performed for diagnosis. The superiority of the closed method of draining empyema is not generally appreciated by the French. These few observations do not detract from the general excellence of the work. Comby has exercised due regard for the physician scattered over the far flung vastnesses of the official and unofficial French foreign legion. Tropical and parasitic colonial diseases are included. Scarcely a month passes without some elucidating article appearing in the French journals from Comby's pen. He has been a teacher discharging his obligation to his pupils for thirty years and in that vein began his book of treatment, which has just passed its ninth edition.

CANCER AND SCIENTIFIC RESEARCH. By Barbara Holmes, Ph.D., Biochemical Laboratory, Cambridge. With a preface by Professor Sir F. G. Hopkins, President of the Royal Society. Cloth. Price, $1.50. Pp. 160. New York: Macmillan Company, 1931.

The facts that have been gleaned by laboratory research on cancer in the last thirty years—for it was in 1901 that Loeb published his first observations on the grafting of animal tumors—have not been satisfactorily surveyed in English since 1913, when Woglom published "The Study of Experimental Cancer." That book is now out of print and it is therefore convenient for the physician who is or should be interested that this volume has appeared. Much has been learned in the meantime, in some instances of great practical value, though the mass of research material with which this book is concerned as yet furnishes only a first approximation to knowledge. Out of the mass of contradictory material that exists concerning the experimental work on cancer, arising primarily from lack of fundamental knowledge of the conditions of biologic research on the part of many investigators, Miss Holmes has culled the essential points and presented them in simple form and with excellent judgment. The few small errors that have been detected do not detract from the value of the volume. It would be well for the practitioner in medicine or surgery to read what she has to say concerning the caution necessary in the interpretation of crude statistics. The chapter on occupational cancer is excellent, but Miss Holmes' geography is at fault when she endows Bavaria with uranium mines. In the chapter on inheritance she is more discreet than some of our genetic colleagues. The chapters on immunity and tissue culture are excellent sketches of the most important results. She is inclined to be a little generous with some of the work done in England long after it had been done in other countries, but this may be forgiven for she too is English.

THE CASE FOR ACTION: A SURVEY OF EVERYDAY LIFE UNDER MODERN INDUSTRIAL CONDITIONS, WITH SPECIAL REFERENCE TO THE QUESTION OF HEALTH. By Innes H. Pearse, M.D., B.S., and G. Scott Williamson, M.C., M.D. With prefaces by the Rt. Hon. Lord Moynihan, K.C.M.G., C.B., President of the Royal College of Surgeons, and A. D. Lindsay, C.B.E., LL.D., Master of Balliol College, Oxford. Cloth. Price, 5s. Pp. 171. London: Faber & Faber, Ltd., 1931.

The authors present in this little book the theories and aims which led them to establish their pioneer health center at Peckham, England. Their purpose is to improve the environmental conditions of the poorer artisan class, through education, periodic health examinations and social welfare work carried out not as a charity but with the voluntary financial cooperation of the people themselves. The staff of the pioneer health center consists of a resident medical officer, a social secretary and a housekeeper, whose services are obtained on the payment of a small weekly sum by each family. These services include periodic medical and dental examinations, a parent's clinic, antenatal, postnatal and infant welfare clinics, orthopedic clinics and a children's afternoon nursery. Thus the work takes on the nature of social service and settlement activity combined with medical preventive and hygienic service; in fact, it is a medical social club supported by the people deriving benefits from it. Emphasis is placed on preventive rather than on curative medicine. The authors are of the opinion that health cannot be enjoined by any system of charity; that health demands responsibility and that the members of the club should assume their own burdens. This interesting report presents the aims and experiences of a medicosocial experiment with the object of helping people to maintain themselves in their social environment. Sound and logical principles are emphasized which should be of interest to physicians and sociologists.

EASIER MOTHERHOOD: A DISCUSSION OF THE ABOLITION OF NEEDLESS PAIN. By Constance L. Todd. Cloth. Price, $2. Pp. 199. New York: John Day Company, 1931.

This is essentially an advertisement of the Gwathmey method of producing analgesia in labor. The author is evidently a brilliant woman and she presents her material in an easily readable style, but the contents of the book are reminiscent of the articles in lay magazines many years ago when the propaganda for twilight sleep was at its height. The testimonials in the book remind one of the advertisements of Lydia Pinkham's Vegetable Compound and similar preparations. The author says "the writer feeling that the time should shortly come when it [the Gwathmey technic] can be offered to *all* [the author's italics] child-bearing women unless something equally good or better in her particular case is offered to her." Physicians cannot treat all women alike, as the author herself admits. Furthermore, not all physicians use the Gwathmey procedure and, still further, many physicians obtain as good if not better results with other procedures than the one advocated by the author. This book gives the lay reader the impression that the Gwathmey procedure is the method of choice and that expectant mothers should demand that their physicians use it. That this is obviously unfair to physicians who prefer other procedures is proved by the numerous letters received by the editor of the *Ladies' Home Journal* after the author's article on "Easier Motherhood" appeared in that publication.

THE MASTER OF DESTINY: A BIOGRAPHY OF THE BRAIN. By Frederick Tilney, M.D. With a foreword by Austin Fox Riggs, M.D. Cloth. Price, $4. Pp. 343. New York: Doubleday, Doran & Company, Inc., 1930.

Dr. Tilney has traced in an interesting and authoritative manner the history and development of the brain. Starting with the simplest forms of life, he describes the nervous system and ascends to more complicated forms with emphasis on the central nervous systems of monkeys, gibbons, orang-utans and so to primitive and modern man. Man's brain is what makes him stand apart from all other living things; but his brain differs only in degree from those of his direct ancestors and his more remote cousins in the scale of life. The story is fascinating.

AN INTRODUCTION TO PRACTICAL BACTERIOLOGY: A GUIDE TO BACTERIOLOGICAL LABORATORY WORK. By T. J. Mackie, M.D., D.P.H., Professor of Bacteriology, University of Edinburgh, and J. E. McCartney, M.D., D.Sc., Director of Research and Pathological Services. Third edition. Cloth. Price, $3.50. Pp. 421, with illustrations. New York: William Wood & Company, 1931.

This was primarily intended as a laboratory guide for students but is useful also in clinical and public health laboratories. It is mostly of the so-called practical character and includes the usual bacteriologic and serologic methods. While most of these procedures are common to English and American practice, there are a few exceptions, of which examination of water, milk and antiseptics furnish examples. The chapters dealing with medium preparation and staining methods might have been simplified with benefit to the student. As in most books of this character, too many methods and modifications have been included.

THE DUKE ENDOWMENT, FIFTH ANNUAL REPORT OF THE HOSPITAL SECTION, 1929. Paper. Pp. 235. Charlotte: The Duke Endowment, [n. d.].

This report is a well written, detailed presentation of the results of five years' study of hospitalization in the Carolinas. Starting with the historical development of hospitals in the United States and more particularly in the Carolinas, the report gives in an orderly way a great deal of valuable data not

obtainable elsewhere. An attempt was made in the third chapter to evaluate the effects of the efforts of the Duke endowment in behalf of the hospitals of the Carolinas over the five-year period of its existence. While the report is of especial value to those who are interested in hospitals of those two states, it should also interest any others who are concerned with good methods of presenting hospital data. The final chapter presents sixteen illustrations and floor plans of hospitals that have recently been constructed with the assistance of the Duke endowment. The cost of construction of these hospitals ranged from $2,500 to $6,153 per hospital bed, equipped.

Medicolegal

Appointment of Expert Witnesses by the Court

(Jessner v. State (Wis.), 231 N. W. 634)

In Wisconsin, in any criminal case, whenever expert opinion evidence is necessary or desirable the trial judge may appoint one or more disinterested qualified expert witnesses (Wis. Stats., sec. 357.12). The fact that such expert witnesses have been appointed by the court must be made known to the jury, and the witnesses are subject to cross-examination by both parties. The court may commit an accused person to an asylum for observation by all interested experts.

Jessner was convicted of murder, after court-appointed experts had testified concerning his sanity. He appealed to the Supreme Court of Wisconsin, alleging that the statute under which those experts had been appointed had deprived him of various constitutional rights. The statute, he complained, undertakes to authorize such an observation, examination and investigation of the accused as constitute an invasion of his right of privacy, guaranteed by constitutional prohibitions against unreasonable search and against compulsory self-incrimination.

If the statute under consideration, said the court, attempts any violation of the constitutional rights of an accused person, it must be through that provision that authorizes his commitment to a hospital for observation. It does not follow, however, that, because a fact pertains to or is connected with the person of one who is accused of crime, that fact is necessarily a secret; personal characteristics which are commonly open to and observable by all persons are not of that secret nature which the constitutional prohibitions here discussed are designed to protect. This statute should not be construed, if it is possible to construe it otherwise, as a legislative attempt to compel an accused person to submit to an unconstitutional inspection or investigation. It is construed here, said the Supreme Court, as authorizing the court-appointed experts to make only such investigations and examinations as are consistent with the constitutional rights of the accused, but no attempt will be made at this time to set the limits of such rights. In the present case, said the court, no matter what the constitutional rights of an accused person may be, there is no contention that they were violated. The appointment of experts by the court and their examination of the defendant were by and with the consent of the defendant. Their testimony, therefore, cannot be said to be based on knowledge obtained as the result of any violation of the constitutional rights of the accused.

The defendant contended further that the statute authorizing the appointment of expert witnesses by the courts violates that provision of the Wisconsin constitution that guarantees a jury trial, since the witnesses appointed by the court must be identified to the jury as court-appointed experts. This, he contended, makes the court stand sponsor for the credibility and reliability of such experts. The "jury" guaranteed to the defendant by the Wisconsin constitution, however, the court said, is such a jury as was known by the common law in the courts in the territory of Wisconsin before the state was organized. The only limitation which the common law imposed on the trial judge in the matter of expressing his opinion with reference to the merits of a case was that he should make it clear to the jury that they were not bound by that opinion and that their decision on the facts rested exclusively with them. Whether the sponsoring of any witnesses by the court is good public policy, however, is no longer a matter of judicial opinion: the dominant opinion of the Wisconsin legislature on the subject has received expression in this statute, and such an expression on matters of public policy prevails unless it contravenes some constitutional provision. There is no constitutional provision in Wisconsin relating to jury trials which prohibits the practice prescribed by the legislature in this statute.

The conviction of the defendant was affirmed.

Malpractice Provable by Lay Testimony.—There is no distinction between malpractice actions against dentists and malpractice actions against physicians. The rules of law applicable to one are applicable to the other. Neither physician nor dentist can be held to guarantee the results of his professional services. All that either undertakes in treating a patient is to possess that reasonable degree of skill and learning possessed by others of his profession in the same locality, and to use reasonable and ordinary care and skill in the application of that knowledge to accomplish the purposes for which he was employed. An instruction that the jury in determining what is or is not proper practice in the performance of a dental extraction must base their findings on the testimony of dentists is a correct statement of the law as applied to the more technical matters of dentistry, but it is not of universal application. Many things may happen in the course of a dental extraction which, to any person possessed of normal faculties, would appear to be negligent. So it may well be that, if a dentist drops a tooth into the throat of a patient and does not use the methods which common knowledge would suggest to an ordinary person in an endeavor to recover it, the testimony of experts would not be necessary to establish negligence. As is said in 48 Corpus Juris, 1151:

> Expert testimony is not required, however, where the results of the treatment are of such character as to warrant the inference of want of care from the testimony of laymen or in the light of the knowledge and experience of the jurors themselves. That some facts tending to establish plaintiff's case may have been shown by non-expert testimony is not objectionable.
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> —*Nelson v. Parker (Calif.), 286 Pac. 1078.*

Evidence: Expert Opinion on Roentgenogram Not in Evidence.—A physician may not testify concerning what was shown by a roentgenogram that is not produced in court. The contention that the roentgenogram is a part of the hospital records and cannot be taken from the hospital presents no adequate excuse for a failure to produce it. There is no rule of law that places hospital records in a privileged class. They can be produced in court the same as the records of a corporation or any other records, corporate or private, that may be necessary to further justice between litigants. The roentgenogram should be produced in evidence so that the other party to the case may use it for the purpose of cross-examination and submit it to his own medical experts for examination, to enable them to testify as to their interpretation if they disagree with the expert who interpreted it on behalf of the party relying on it. A medical expert may not testify as to the cause of a person's physical condition or injuries, when his testimony is based in part on a report made to him by another physician or on information that he derived from private conversations with a third party.—*Lefebvre v. Western Coal and Mining Co. (Kan.), 289 P. 456.*

Evidence: Testimony of Expert Witnesses Appointed by Court.—A mandatory provision of a statute that "the judge of the trial court shall appoint one or more disinterested qualified physicians . . . to testify as experts" does not make it mandatory that the experts so appointed be called to testify at the trial. The intention of the legislature in passing such a statute was to make expert testimony neutral and disinterested and to remove the evil often arising because of partisan expert testimony. Under the statute the appointment of experts is unquestionably mandatory, but the actual calling of the experts to testify is discretionary with the court. It often happens that court-appointed experts have formed no opinion. In such a case there would be no purpose in calling the experts merely to testify to that fact.—*Vey v. State (Ohio), 172 N. E. 434.*

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Insanity: Lay Opinion Based on Hypothetical Question.—A nonexpert witness may not give an opinion as to the sanity or insanity of an individual based in whole or in part on an abstract hypothetical question. In order that such a witness may qualify to express an opinion that an individual is of unsound mind, his testimony must show such acquaintance and continuous intimacy as enables the witness to form an accurate and trustworthy opinion as to the mental condition of the individual and the witness must first state the facts claimed to show or indicate an abnormal condition of the mind.—*Sorter v. Austen (Ala.), 129 So. 51.*

Workmen's Compensation Acts: Loss of Impaired Eye.—An employee who loses in an industrial accident an impaired but still usable eye is entitled to full compensation under a provision in a workmen's compensation act authorizing a specified award for the "loss of an eye." The act does not provide that the loss of an eye shall be compensated by an award based on the amount of vision which existed prior to the accident.—*City of Shelbyville v. Kendrick (Tenn.), 29 S. W. (2d) 251.*

Malpractice: Negligence A Question for Jury.—The mere breaking of a hypodermic needle in a patient's gum is not evidence of negligence. Whether the failure of the physician to remove a needle so broken or to inform the patient that it had been broken and that a part of it remained in the jaw is negligence presents a question for the jury.—*Ernen v. Crofwell (Mass.), 172 N. E. 73.*

Workmen's Compensation Acts: Latent Disease Activated by Trauma.—When an employee has a latent or dormant infectious disease, unknown to him, and receives an accidental injury that aggravates the disease to virulence or activity, the injury, including the effects of the infection, is compensable under the workmen's compensation act of Oklahoma.—*Christian v. Hanna (Okla.), 289 P. 708.*

Evidence: Admissibility of Notes Made by Physician After Treatment.—A medical witness, to refresh his recollection while testifying, may properly consult notes he made at the time of the treatment to which they relate, but neither he nor counsel of the party calling him should be permitted to read those notes to the jury.—*McKenna v. Fielding (Mass.), 172 N. E. 224.*

Society Proceedings

COMING MEETINGS

American Medical Association, Philadelphia, June 8-12. Dr. Olin West, 535 North Dearborn Street, Chicago, Secretary.

American Association for Thoracic Surgery, San Francisco, July 1-3. Dr. Duff S. Allen, Washington University Medical School, St. Louis, Secretary.

American Dermatological Association, Toronto, Canada, June 15-17. Dr. William H. Guy, 500 Penn Avenue, Pittsburgh, Secretary.

American Heart Association, Philadelphia, June 9. Dr. Irl C. Riggin, 450 Seventh Avenue, New York, Executive Secretary.

American Laryngological Association, Atlantic City, June 15-17. Dr. George M. Coates, 1721 Pine Street, Philadelphia, Secretary.

American Otological Society, Briarcliff, New York, June 17-19. Dr. Thomas J. Harris, 104 East 40th Street, New York, Secretary.

American Physical Therapy Association, Philadelphia, June 8-9. Dr. C. C. Vinton, 585 West End Avenue, New York, Secretary.

American Proctologic Society, Philadelphia, June 7-9. Dr. Curtice Rosser, Medical Arts Building, Dallas, Texas, Secretary.

American Society of Clinical Pathologists, Philadelphia, June 7-9. Dr. A. S. Giordano, 604 North Main Street, South Bend, Ind., Secretary.

American Surgical Association, San Francisco, June 29-July 1. Dr. Lincoln Davis, 205 Beacon Street, Boston, Secretary.

Association for the Study of Internal Secretions, Philadelphia, June 8-9. Dr. F. M. Pottenger, Monrovia, Calif., Secretary.

Maine Medical Association, Greenville, June 25-27. Dr. Philip Webb Davis, 22 Arsenal Street, Portland, Secretary.

Massachusetts Medical Society, Boston, June 8-10. Dr. Walter L. Burrage, 182 Walnut Street, Brookline, Secretary.

Medical Women's National Association, Philadelphia, June 7-8. Dr. Nelle S. Noble, Bankers Trust Building, Des Moines, Iowa, Secretary.

Montana, Medical Association of, Bozeman, July 8-9. Dr. E. G. Balsam, 208 North Broadway, Billings, Secretary.

Pacific Northwest Medical Association, Seattle, June 25-27. Dr. Frederick Epplen, Stimson Building, Seattle, Secretary.

Wyoming State Medical Society, Rawlins, July 13-14. Dr. Earl Whedon, 50 North Main Street, Sheridan, Secretary.

ASSOCIATION OF AMERICAN PHYSICIANS

Forty-Sixth Annual Meeting, held at Atlantic City, N. J., May 5 and 6, 1931

(Continued from page 1904)

HORMONES AND DISEASES OF THE DUCTLESS GLANDS

Function of the Cortical Hormone of the Suprarenal Gland

W. W. SWINGLE, PH.D., and J. J. PFIFFNER, PH.D., Princeton, N. J.: For the last few years we have been working on the hormone of the suprarenal gland. We have tested out 135 methods of extraction, and the activity of the product is measured by the result on the life span of the animal after removal of the gland. Our product was soluble in 80 per cent alcohol; it was then treated with benzene and then with acetone. This material still contained toxic suprarenal matter. It was found that the acetone soluble fraction contained the hormone, and the insoluble material was discarded. Two filterings were made through permutit, leaving a solution containing the hormone with decrease of toxic material to one part in two million. Suprarenalectomized cats could be kept alive 100 days or as long as desired with this principle. Animals allowed to fall into an extreme condition of suprarenal deficiency can be revived in seventy-two hours, gain weight and behave just as normal cats. The blood constituents appear perfectly normal. Animals with suprarenal deficiency show marked drop in temperature and emaciation and weakness. In thyroidectomized animals treated with this principle, the metabolism returns to normal. Experiments are on hand to show the result of the hormone on thyroidectomized and suprarenalectomized animals; they are not complete, but the inference is that normal metabolism may be reestablished. As regards the human subject, one old man was sent to me for treatment whose chief complaint was "creaky knees." I referred him to Dr. Rowntree.

Results of Treatment with the Cortical Hormone of the Suprarenal Gland

DRS. L. G. ROWNTREE, C. H. GREENE, Rochester, Minn., and W. W. SWINGLE, PH.D., and J. J. PFIFFNER, PH.D., Princeton, N. J.: I have some pictures here which have a bearing on Addison's disease. We are now able to show by x-rays a shadow of the suprarenal gland. From 25 to 40 per cent of cases may show calcification. Of the glands removed at autopsy, twenty-one pairs showed calcification. Clinically the symptomatology varied. Asthenia, pigmentation, emaciation, dizziness, arterial hypertension, dehydration, circulatory failure, anorexia, nausea and vomiting were among those noted. The pigmented cases had a more serious prognosis. The results of giving the hormone are spectacular in clinical cases of suprarenal deficiency. I had one patient who came to the ward in severe collapse due to Addison's disease. I telephoned Dr. Swingle and he sent the material by air, and as soon as the patient received it he improved and in three days was calling for wieners and sauerkraut. However, the treatment is new and we have to feel our way. The material so far has been too scarce for our needs, and we have had to discontinue treatment in pressing cases for lack of the hormone. We would like to say that the patients would have done well if we had had the material. So far we have had five deaths in twenty cases. Two patients who had adequate treatment did not respond. We thought it might have been masked tuberculosis. In those who improved, there was gain in weight and strength, disappearance of anorexia, nausea and vomiting, decrease of pigmentation, gain in sleep, change of outlook, and desire to go back to work. Cases with serious prognosis showed a systolic pressure below 70 and urea above 60 mg. Besides the hormone dosage the general treatment included use of the x-rays, calcium and cod liver oil. The hormone was administered intravenously, in a dosage of 3.5 cc. a day. In the preparation we have used there seems to be a tendency to sensitize the patients to epinephrine. I think that in this hormone we have a most potent remedy and that it is specific for Addison's disease. It is not infallible. It must be remembered that Addison's disease is often a chronic effect of an original tuberculosis in many cases and this has a bearing

on treatment. Many records from many cases from all parts of the country will be necessary in evaluation of this form of treatment.

Studies on the Hormone of the Suprarenal Cortex

DR. G. A. HARROP, JR., A. WEINSTEIN and A. MARLOW, Baltimore, and W. W. SWINGLE, PH.D., and J. J. PFIFFNER, PH.D., Princeton, N. J.: All of the studies reported have been made with the extract of beef suprarenal cortex as prepared by Swingle and Pfiffner.

Preliminary human experiments early last fall on the effect of injections of the cortex extract on the metabolism indicated that in a certain number of patients with hyperthyroidism a significant drop in the oxygen consumption occurred after injections of from 10 to 30 cc. No significant changes in pulse rate or clinical condition occurred in these short experiments. We then studied the effect on four patients with hyperthyroidism of daily intravenous injections of from 5 to 6 cc. in divided doses over a period of one month. One well controlled case showed an effect. The others were quite negative. We conclude that an influence of this material on the course of hyperthyroidism cannot be shown although the possibility still remains either that the amount of effective material is too small in the extract available at present or that because of differing etiology it may be effective in certain cases and not in others.

Striking clinical improvement was shown in three cases of Addison's disease, one of which, of long standing (six or seven years) finally proved fatal in spite of the exhibition of large amounts of extract. During the period of suprarenal insufficiency, in the two cases studied, marked disturbance of renal function occurred with production of low urinary volume and suppression of nitrogen, urea, chloride and phosphate excretion. Diuresis occurred during recovery following use of the extract. The blood pressure was not lowered during the insufficiency period below its level either in the fore period or after recovery. This disturbance of renal function persists after apparent recovery for a prolonged period as indicated by marked persistent lowering of the urea clearance, although phenolsulphonphthalein excretion, specific gravity and blood urea nitrogen, and total urine nitrogen may return soon to normal levels. The earliest indication in the blood of impending suprarenal insufficiency which we have observed lies in a rise in nonprotein nitrogen and in urea. Except terminally the other nitrogen constituents studied (creatinine, creatine and uric acid) are not significantly affected. Eventually the inorganic blood phosphate and potassium are increased. No significant changes are noted in lactic acid. The blood sugar drops markedly and in one instance intravenous injection of dextrose produced an effect in a comatose patient strikingly like that shown in recovery from an insulin reaction.

Numerous metabolism experiments have been performed on bilaterally suprarenalectomized dogs and on normal animals. One animal without suprarenals has been kept in normal condition for 100 days with injections of extract, during which time he has been thrown into suprarenal insufficiency by withdrawal of the extract three times. The blood and metabolism changes in the dog appear to parallel those in the insufficiency of Addison's disease but have been studied in greater detail. They are as follows: (*a*) Rise in blood nonprotein nitrogen and urea, which definitely precede both a (*b*) drop in total metabolism (oxygen consumption) and respiratory quotient and (*c*) fall in blood pressure, as well as marked (*d*) suppression of urinary volume, and in the excretion of total nitrogen, urea and chlorides. (*e*) No changes occur except terminally in blood creatine or creatinine concentration or in their urinary excretion. (*f*) Blood sugar tends to fall but is not constantly affected. (*g*) Diuresis occurs in the first days of recovery. (*h*) No microscopic changes occur in the urine, but moderate albuminuria is common and persists in the recovery period.

We believe that these results indicate either a direct or indirect influence of the suprarenal cortex on kidney function, especially in the excretion of fluids, chlorides and urea nitrogen. Whether or not it is simply due to lowering of kidney metabolism as part of some general depression of cellular activity remains to be demonstrated, but we believe the evidence indicates that it is not a phenomenon nearly secondary to circulatory failure or disturbance in the gastro-intestinal tract.

DISCUSSION ON HORMONES AND DISEASES OF THE DUCTLESS GLANDS

DR. T. ALLBRIGHT, Boston: I had one case referred to me of Addison's disease, and I obtained some of the hormone. Then two more cases appeared. I had three cases in all, but not treated adequately. Two young adults had definite tuberculosis with calcification of the suprarenals. They have improved clinically and the anorexia has stopped. The blood pressure has not been affected. The ergographic records were improved. The patients felt better and did not want to go back to bed. Even without improvement in the record there was clinical improvement with a dosage of 30 cc. With a dosage of 18 cc. of Hartman's preparation the patient showed gain in weight. Any change in pigmentation was not noticed.

DR. THOMAS R. BOGGS, Baltimore: An instance came under my observation last summer in which results similar to those quoted were achieved, in a case of extreme Addison's disease, but with the use of the whole gland, administered in a capsule nonsoluble in the stomach. A woman, aged 37, of Scotch descent, who lived in the island of Jamaica, developed such extreme pigmentation and became so black that the question of her living among white people became a matter of great embarrassment. Her husband was a well known business man and it was detrimental to him in his business because people thought he was living with a colored woman. When I saw the patient she was of a deep brown. She was asthenic and her blood pressure was 60 systolic and 50 diastolic. She had vomiting and diarrhea. We tried giving her large doses of the whole suprarenal gland in capsules with considerable doses of calcium. Within four weeks the blanching of the skin was marked, although she gained little in weight. The blood pressure was slightly improved and she felt well. At that time they had to go home. They had come on excursion rates from Jamaica. I had a letter from her saying she was able to do a little garden work and could now pass for a white woman.

DR. B. S. OPPENHEIMER, New York: Fundamentally the etiology of exophthalmic goiter is unknown. There is some work indicating that it bears relation to the hormone in the suprarenal cortex. In one case there had been massive doses of x-rays applied to the abdomen for tumor. Later the patient suffered emaciation and asthenia. A year later there was typical exophthalmos with a basal metabolism of 76 per cent. Four years later, in 1929, a subtotal thyroidectomy was done. In such a case it would appear that the cells of the suprarenal cortex had been damaged by high voltage roentgen therapy. I think it is surprising that the basal metabolic rate has not been elevated by therapy of this type. The effect of injections of the suprarenal cortex on patients practically comatose is dramatic. The later effect is hardly less surprising; the patients become pale and stronger, and all the symptoms are lessened.

DR. J. H. MEANS, Boston: In regard to the symptomatology, other than the metabolic rate, is there any improvement in the asthenia and emaciation? You would expect these symptoms to show direct response to injections of the hormone.

DR. L. G. ROWNTREE, Rochester, Minn.: We find that patients are apt to demand this type of treatment. In regard to the use of the whole gland mentioned by Dr. Boggs, we have used only a preparation of the suprarenal cortex, and we feel that it has materially added to our results. Former statistics showed a mortality of 85 per cent, although it has happened that some cases recover spontaneously. I think that in exophthalmic goiter the effect on the symptomatology is a definite relief of the exhaustion of the gland.

DR. G. A. HARROP, JR., Baltimore: I think that in the evaluation of any treatment one must distinguish between subjective feelings and what one really finds objectively. Several patients told us they felt better, but we were not able to find conclusive proof of objective improvement either in strength or in weight. However attractive in theory the relationship of the suprarenal cortex and the thyroid gland may be, as yet definite proof is not forthcoming.

Experimental Suprarenal Exhaustion

DRS. C. W. EDMUNDS and R. G. SMITH, Ann Arbor, Mich.: In experiments on epinephrine storage it was found that there

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are certain poisons which may increase epinephrine in the blood, as, for instance, pilocarpine and strychnine, but there is no diminution in the gland. Stimulation of the splanchnics can increase blood pressure, without diminution in the gland. Dogs receiving 2 mg. of physostigmine per kilogram of body weight have serious reduction of the epinephrine and become very weak. If the poison is withdrawn, the substance in the gland is quickly replaced and is normal in forty-eight hours.

DISCUSSION

DR. JOSEPH L. MILLER, Chicago: In the treatment of thyrotoxicosis by physostigmine, this effect is not mentioned by the author. In 200 cases treated, 49 per cent of the 200 have recovered. This work of Dr. Edmunds brings to mind a practical factor in the explanation of the matter.

DR. C. W. EDMUNDS, Ann Arbor, Mich.: Dr. Miller suggests that this has a bearing on the explanation. I think it offers an explanation of the work of Crile why patients do not recover under partial thyroidectomy. They no longer get stimulation from the suprarenal gland. The suprarenal glands are not acting. They do not have the proper effect on the metabolism.

Placental Hormones

DR. J. B. COLLIP, D. L. THOMSON, J. S. L. BROWNE, M. K. MCPHAIL and J. E. WILLIAMSON, Montreal: Daily injections of ether extracted pregnancy urine into immature female rats for a period of two to four weeks produces effects in the genital tracts which are indistinguishable from those resulting from repeated intramuscular implantations of fresh rat pituitary glands according to the method of Zondek-Aschheim and of Smith and Engle. The extracts that have been prepared by us from fresh human placenta do not produce such effects, even when administered in considerable dosage for a period of weeks. At least three active principles can be obtained in separate extracts of human placenta. The first is estrin; the second has been called "emmenin" and the third has been described as the "anterior pituitary-like substance." The physiologic properties of the two latter principles have been studied in considerable detail. A comparison has been made of the effects of the treatment of rats with placental extracts, pituitary implants, pregnancy urine and extracts of pregnancy urine.

DISCUSSION

DR. E. D. MASON, Montreal: Through the courtesy of Dr. Collip last year, we studied these preparations at the Royal Victoria Hospital in Montreal, in the gynecologic department. Cases were studied to find the organic relationship to an endocrine condition, of these substances. The anterior pituitary-like substance has been effective when administered hypodermically, and is useful in menorrhagia in a fairly large series of cases. We do not know why one works in one type of case and one in another. Results have been consistent and definite, and they promise to be of considerable benefit.

DR. J. B. COLLIP, Montreal: We were unable to produce results in the normal adult with the anterior pituitary-like fraction, whereas in the pregnancy urine we produced massive sterile ovaries. We think our work has given us justification for the clinical use of the two preparations. We have been able to produce luteinization of the ovaries.

Cases of Simonds Disease

DRS. D. A. L. GRAHAM and R. F. FARQUHARSON, Toronto: A woman, aged 46, was admitted to the hospital, and she died without coming out of coma. The history obtained after death showed that the patient had been healthy until eleven years before, when after birth of her fifth child she had puerperal sepsis, she was weak, she could not work, menstruation never returned, her hair became gray and coarse, the face was wrinkled, and there was extreme muscular weakness and loss of weight. Autopsy showed a smallness of all the organs of the body and complete depression of the anterior lobe of the hypophysis; there were but few remnants of this tissue; it was mostly replaced by connective tissue. Simonds considered that these cases were due to septic emboli followed by destruction of the anterior lobe of the pituitary. He called the condition hypophyseal cachexia. Three of our cases followed puerperal sepsis in women. One case, in a male, showed a four plus Wassermann reaction and autopsy showed fibrosis of the pituitary body. Patients all manifested sensitiveness to cold, lowered metabolic rate, lethargy, somnolence, weakness, forgetfulness and mental changes, with discovery at autopsy of general smallness of the organs. The features showed marked premature senility.

DISCUSSION

DR. B. S. OPPENHEIMER, New York: I think this is the first case in which an autopsy report has been published. I have seen three cases with one autopsy. Clinically the case showed the characteristic features and the autopsy showed an advanced lesion of the anterior lobe of the pituitary. In the German literature there are forty-one cases which came to autopsy. I think they must be as common over here as in Europe. There may be abortive cases in which the patients live for years. One patient lived eighteen years and then Simmonds himself performed the autopsy. I have followed one case twenty years. I have given preparations to raise the metabolic rate to normal. It has been as low as 45 per cent, but this treatment caused no improvement in the clinical condition.

DR. L. G. ROWNTREE, Rochester, Minn.: I have seen three cases. The metabolic rate was extremely low. None came to autopsy. I should like to know whether any changes in the sella have been described.

DR. REGINALD FITZ, Boston: I am reminded of a group of cases in the war, in which men received gunshot wounds at the base of the skull. They developed the picture of Simmonds disease, became sleepy and lethargic, and had subnormal temperature. Col. Gordon Holmes described the clinical picture.

DR. C. D. PARFITT, Gravenhurst, Ont.: Were any nutritional changes noted in the fingers and toes? I have had one such case, of a man who lost all the hair on the face and body and had slight fall in blood pressure with restriction of the fields of vision. There was a tumor of the anterior pituitary lobe. We tried thyroid therapy without effect. This patient has very marked degeneration of the nails of the fingers and toes. With roentgen treatment of the pituitary there has been some improvement.

DR. L. M. WARFIELD, Milwaukee: In Eppinger's clinic there was a man of 35, who as a boy of 7 had been accidentally shot in the head. His growth entirely ceased, although his intelligence improved normally.

DR. R. F. FARQUHARSON, Toronto: I am able to recall two other cases of the syndrome, but the records are not so complete. In all three cases the sella was normal in size and shape. So far as the nutrition of the finger nails, they showed the general smallness characteristic of the disease. I think there is some similarity, if not exact relationship, to pituitary dwarfism, just as acromegaly bears relationship to gigantism. In some cases the undernutrition might account for the low metabolic rate, but in one of our cases there was low metabolic rate before there was undernutrition. The patient weighed at first 112 pounds (51 Kg.) and later only 95 pounds (43 Kg.). When first seen the basal metabolic rate was 49 per cent when taking an ordinary diet.

DR. H. S. PLUMMER, Rochester, Minn.: In 1909 I saw a case which developed after removal of the anterior lobe of the pituitary for tumor. The interesting part of this case was that every time I tried to raise the metabolic rate by large doses of thyroxine the man became unconscious. I tried more cautiously and got the metabolic rate to normal, but it did not do any good.

Experimental Chronic Hyperparathyroidism: Metabolic Studies in Man

DR. R. M. WILDER and J. L. JOHNSON, Chicago: Experiments of J. L. Johnson confirm work recently reported by Jaffé and Bodansky and reveal that the skeletal lesion produced in animals (rats and puppies) by chronic injections of parathyroid extract is a lacunar resorption of bone, accompanied by replacement of both marrow and cortical structures by fibrous connective tissue, the process including cyst formation and the accumulation of giant cells. The histologic picture

is essentially identical to the generalized osteitis fibrosa that is found associated clinically with tumors of the parathyroid glands. The simultaneous injection of viosterol did not significantly influence the results.

Calcium and phosphorus balance studies on two human subjects were included as a part of this study. The protocols of one of these were reported. Parathyroid extract, in a dosage of 50 units daily, caused an elevation of the calcium and depression of the phosphorus of the serum and a prompt increase in urinary excretion of both calcium and phosphorus, a moderate anemia and general weakness and pains in bones and joints. Giving viosterol with parathyroid extract did not significantly alter these effects. It was concluded that the pathogenesis of generalized osteitis fibrosa is clearly an oversupply of parathyroid hormone.

DISCUSSION

DR. J. C. AUB, Boston: When I was in Vienna and talked to workers there, they thought that calcium could be absorbed in the bone without the presence of osteitis. I should like to know what Dr. Wilder thinks of the effect of parathyroid extract on the osteitis.

DR. R. M. WILDER, Chicago: One cannot believe that this is a mere dissolving of the calcium of the bone. It differs from osteoporosis and the picture of hyperparathyroidism. It differs from parathyroid extract administration. It looks like the process of erosion by osteoclasts. Giant cells can be seen in the lacunae, but one does not see osteoclasts where erosion is going on. Whether they have been there, it is hard to say. There is erosion where there are no osteoclasts. I am not sufficiently trained as a pathologist to make a definite statement, but I do not think that osteoclasts are the only type of eroding cells.

Incidence of Exophthalmic Goiter in Olmsted County, Minn.

H. S. PLUMMER, Rochester, Minn.: The incidence of exophthalmic goiter in the United States is not known. Prevailing thought regarding the relative incidence in different sections of the country is to a high degree inferential. That it is relatively high in the upper Mississippi Valley and Great Lakes region has been recognized for many years. I am confident that the number of cases in the Northwestern states has progressively and periodically increased during the last fifty years. It is probable that a wave of higher incidence followed the influenza epidemics of 1899 and 1918. The latter wave was marked by high intensity and mortality. Data indicate a low incidence in 1923. Correlation of a number of observations led to the conclusion that the incidence of exophthalmic goiter and adenomatous goiter with hyperthyroidism rapidly increased in 1924, reached its height in 1926 and 1927, gradually diminished in 1928 and 1929, and dropped rapidly to the 1923 level in 1931. At the height of this wave the incidence of exophthalmic goiter in portions of the upper Mississippi Valley and Great Lakes region was three or four times that of any preceding period. This high incidence was accompanied by a marked increase in intensity of adenomatous goiter with hyperthyroidism. Without any implications regarding etiology, I will for convenience refer to this wave of high incidence as an epidemic. There has occurred a definite drop in the incidence of adenomatous goiter with hyperthyroidism, as indicated by basal metabolic rate studies. That there has been a corresponding drop in the intensity of exophthalmic goiter seems probable, but the evidence is too confused by the use of iodine in the treatment to permit as yet of a definite opinion. The observations that first suggested the probability of this epidemic were too sudden a change in the number of patients having exophthalmic goiter and adenomatous goiter, coming to the Mayo Clinic from certain sections, to be reasonably accounted for except by a change in incidence, a coincident change in sex ratio, a marked change in the proportion of cases of adenomatous goiter with and without hyperthyroidism, and the sharp elevation of average basal metabolism in patients having adenomatous goiter with hyperthyroidism.

As we had no direct way of ascertaining the percentage of hyperthyroid patients in the Northwest and the Great Lakes region, the conclusion that an epidemic had occurred is to a degree inferential. The analysis of the data on which the conclusion is reached is involved, difficult to present, and too incomplete to report, except for a study of Olmsted County and three adjacent counties in southern Minnesota. In this territory, for twenty years at least, thyroidectomy has been almost universally accepted as a standard way of treating exophthalmic goiter and adenomatous goiter with hyperthyroidism. The diagnosis of hyperthyroid studies and the differential diagnosis of adenomatous goiter with hyperthyroidism has not sufficiently changed to affect the material to be presented. Since the introduction of basal metabolic rate estimations in 1917, the total number has been slightly increased by the addition of a few mild cases. On the assumption that only half of the patients were operated on before 1917, and the majority after 1917, the curves of incidence are not materially changed so far as demonstrating the occurrence of an epidemic after 1923.

There is not sufficient evidence to justify an opinion regarding the cause of this epidemic. The report is made at this time to elicit interest in the study of the problem by men throughout the country.

The onset of the epidemic was almost if not actually coincident with the introduction of iodized salt. At the present time, both the incidence and the intensity are low. The use of iodized salt has increased since the onset of the epidemic. The evidence does not at present warrant an attack on the use of iodized salt. A limited amount of data indicates a low incidence in Michigan. The use of iodine in the treatment did not cause the high incidence of exophthalmic goiter.

Action of Irradiated Ergosterol (Viosterol) and Irradiated Foods

DR. ALFRED F. HESS, New York: Irradiated ergosterol (viosterol) is not merely an antirachitic agent; it is a stabilizer of calcium and phosphorus in the body and therefore may be found of value in various disorders in which these salts are abnormal in the blood, especially when the calcium is somewhat low. It is not of value in malnutrition or to prevent colds and other infections. A most valuable form of irradiated food is irradiated milk. Perhaps this method of supplying the vitamin will be superseded by giving the cow the antirachitic agent in the form of irradiated ergosterol or yeast. This indirect method has been found of great value in protecting infants from rickets.

Some Properties of the Causative Agent of a Chicken Tumor

DR. J. B. MURPHY, New York: The present paper is a summary of a series of studies on the properties of the chicken tumor agents, undertaken with a view of throwing some light on the nature of these filtrable substances. The difficulty of classification is considered. The tumor agents are found to differ in many respects from the typical filtrable viruses, with which group they are often classed. Some outstanding properties of the tumor are as follows: (*a*) the extreme species and cell specificity, the multiplicity of tumor types, each with its individual agent; (*b*) the fixation of these agents by a substrate, i. e., the protein of susceptible tissue; (*c*) the characteristic reaction to ultraviolet rays; (*d*) the association of the agent with a protein fraction; (*e*) the possible dissociation of the action from the protein; (*f*) the existence of a specific inhibiting agent, and (*g*) the peculiar antigenic properties. Two points are considered of particular importance: first, that a tumor extract may be freed from all detectable protein without decreasing its tumor producing power; and, second, the evidence that the agent as it occurs in the tumor has its activity partially neutralized by an inhibitor.

An analogy is suggested between these tumor agents and the substance present in the specific types of pneumococcus which may transform the undifferentiated pneumococcus into any one of the specific types. The chief characteristic of both groups is that the agents induce a specific and permanent cell mutation in undifferentiated cells. This character, probably shared by other agents of a doubtful nature, has led to a suggestion that they may be grouped under some such class name as transmissible mutagens.

(To be continued)

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Current Medical Literature

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Titles marked with an asterisk (*) are abstracted below.

American Journal of Diseases of Children, Chicago

41: 485-746 (March) 1931

*Shadows Produced by Lead in Roentgen-Ray Pictures of Growing Skeleton. E. A. Park, D. Hackson and L. Kajdi, Baltimore.—p. 485.
*Roentgenographic Reexamination of Chests of Children from Six to Ten Months After Measles. J. L. Kohn and H. Koiransky, New York.—p. 500.
*Effect of Atropine on Bladder of Child. S. Amberg and O. Grob, Rochester, Minn.—p. 507.
*Tuberculosis in Mesenteric Lymph Nodes of Children. M. Leonard, New Haven, Conn.—p. 513.
*Polymorphonuclear Count in the New-Born: Deflection by Viosterol. H. N. Sanford and M. Crane, Chicago.—p. 528.
Effect of Various Factors on Experimentally Produced Convulsions. H. M. Keith, Rochester, Minn.—p. 532.
Carbohydrate Metabolism in Mongolian Idiots as Evidence of Endocrine Dysfunction. W. D. O'Leary, St. Louis.—p. 544.
*Purpura Hemorrhagica (Thrombocytopenia). A. G. de Sanctis and A. W. Allen, New York.—p. 552.
*Relation of Tonsils and Adenoids to Infections in Children: Based on Control Study of Forty-Four Hundred Children Over a Ten Year Period. A. D. Kaiser, Rochester, N. Y.—p. 568.
Acute Generalized Tuberculosis Without Typical Tubercles. W. A. Reilly and Z. E. Bolin, San Francisco.—p. 582.
Amyotonia: Case with Histologic Observations. C. R. Tuthill and M. G. Levy, Buffalo.—p. 591.
Hyperpyrexia of Unknown Etiology of Over One Year's Duration. J. B. Bilderback, Portland, Ore.—p. 603.
*Correlation of Roentgenologic Picture with Gross and Microscopic Examination of Pathologic Material in Congenital Osseous Syphilis. S. McLean, New York.—p. 607.

Shadows Produced by Lead.—Park and associates state that, when taken for a sufficiently long period in sufficient dosage, lead apparently can produce changes in the bone in process of formation which are reflected in the roentgenograms as shadows of increased density. Like elementary phosphorus, lead can cloud bones in roentgenograms. The clouding is most conspicuous where growth is occurring most rapidly; namely, at the anterior ends of the middle six ribs, the lower ends of the femora, the upper end of the humerus, the lower ends of the radius and ulna and at both ends of the fibula and tibia. In two cases observed by them in which the banding was most marked, only the ribs were studied with the roentgen ray; but in two other cases in which banding was well marked in the fast growing parts of the skeleton, it was not noted in the slow-growing parts. That only those parts of the skeleton in process of growth at the time of ingestion of lead are affected is proved by the entirely normal structure of the old bone proximal to the lesions, the sharp limitation of the lesions to the growing parts and a degree of involvement at any point exactly proportional to the rate of growth at that point. Obviously growth in any bone occurs in many places, but only where growth occurs rapidly do the changes readily reach such magnitude as to show in roentgenograms. The fact that only the bone in process of growth is affected must mean that the lead either enters into the chemical composition of the bone or influences cellular activity in such a way that the character of the bone formed becomes altered.

Chests of Children After Measles.—Kohn and Koiransky made roentgen reexamination of the chests of fifty-six children from six to ten months after measles. An interval history was obtained and a physical examination made. Previous pneumonic infiltrations, even when extensive and of long duration, showed little residual or no pulmonary changes on roentgen reexamination. These changes, when present, were described as localized accentuation of the pulmonary markings. Abnormal intensity of the pulmonary markings as described during measles was no longer seen. The evidence of pleural involvement during measles was striking. In eighteen cases, pleural thickening not present during measles was now seen at the site of the interlobar fissure between the upper and the middle lobes of the right lung or in some other portion of the pleura. This involvement occurred often in cases considered clinically mild. The density and the size of the hilar shadows had diminished when compared with the roentgenograms taken during measles. The interval history showed that after discharge from the hospital most of the children remained well. Physical examination of the lungs gave normal results even in patients who had been severely ill with extensive pulmonary and pleural involvement while in the hospital.

Effect of Atropine on Bladder of Child.—From the observations of Amberg and Grob, it would appear that the pressure of the bladder of the child may be lowered after the administration of atropine. This drug also exercises an influence on the amplitude and frequency of contractions of the bladder. The effect of atropine has been noted so far only in patients with enuresis, that is, in a disorder of micturition, and it has been obtained only in a certain number of such cases. At this time it is not possible to state that these effects are confined to such cases. In the majority of cases observed, atropine produced primary, although transitory, slowing of the pulse rate, followed by acceleration. The action of atropine on the bladder was not dependent on, or related to, the usual action of atropine on the eye, skin, mucous membrane and pulse.

Tuberculosis in Lymph Nodes.—Leonard points out the high incidence of tuberculosis in the mesenteric lymph nodes of children. Contrary to prevailing opinion, there seems to be little relation between chronological age and calcification as a pathologic process in children. The significant value of 0.94 for the coefficient of association of tuberculous involvement of the mesenteric nodes and other tissues suggests that the intestinal lymphatic system plays an important part in tuberculous infection in childhood. The fact that the mesenteric nodes are the only tissues in the body that are the sole demonstrable site of tuberculous infection in any single case (eighteen instances, or over one third of the cases studied) also points to the importance of the intestinal lymphatics in the infection of children with tubercle bacilli.

Polymorphonuclear Count in the New-Born.—In a study based on a series of forty new-born infants observed during a period of six months, Sanford and Crane found that viosterol administered to new-born infants tends to increase the number of young or single-lobed nucleated cells of the polymorphonuclears. The older or multilobed forms are decreased. There is a rapid return to normal. Practically no difference in reaction was caused by 3 and 48 drop doses.

Purpura Hemorrhagica.—Three cases of thrombocytopenic purpura are reported by de Sanctis and Allen. The chief complaint and most prominent symptom in the three cases was a persistent, uncontrollable nosebleed. The observations on the blood were typical. Splenectomy was performed in the three cases. The pathologic diagnosis from examination of the removed spleens was fibrosis of that organ. In two of the three cases there has been no recurrence of bleeding since operation. In one case there were several recurrences of epistaxis and petechiae following operation, although they were easily controlled. The rapid destruction of the platelets is due to some factor activating the reticulo-endothelial system to unusual thrombocytolytic action. The recurrence of bleeding in splenectomized patients appears to indicate that, although a large portion of the reticulo-endothelial system has been removed by splenectomy, the remainder has probably been reactivated to renewed activity of platelet destruction by the activating factor.

Relation of Tonsils and Adenoids to Infections in Children.—A study made by Kaiser of the data based on 4,400 controlled children over a ten year period suggests that certain infections have a close relationship to the presence or absence of tonsils and adenoids. Other infections are not influenced favorably or unfavorably by the presence or absence of this lymphoid tissue. A few infections seem definitely more common in the absence of tonsils. The removal of tonsils and adenoids influences favorably the incidence of colds in the

head, sore throats, cervical adenitis, otitis media, rheumatic disease, diphtheria, scarlet fever, nephritis, and dental infections. Chorea, measles, laryngitis, tuberculosis and malnutrition were influenced favorably to a slight degree or not at all. Malnutrition occurred in nearly as many children whose tonsils and adenoids had been removed as in those who had not undergone operation. The removal of the tonsils and adenoids influenced unfavorably the incidence of bronchitis, pneumonia and sinusitis. First attacks of sinusitis occurred somewhat more commonly in the children whose tonsils and adenoids had been removed.

Congenital Osseous Syphilis.—McLean presents an abstract of the charts of sixteen syphilitic infants who came to necropsy. The youngest was 1 month and the oldest 13 months of age. Thirteen were not over 3 months. In each of the sixteen cases, evidence of pathologic changes in the bones was noted in the roentgen film. In all but two instances, the bone removed at necropsy for microscopic examination was selected because it presented the most marked evidence of the disease on the roentgen films. An endeavor was made, however, to use the bones of the lower extremities for section, as they presented a larger field for microscopy and offered more normal bone in association with the abnormal for comparative study. The specimens offered for study range from the cases showing the earliest changes in the bone at the epiphyseal-diaphyseal junction to the most advanced type of osteochondritis showing extreme lawlessness of growth. The diaphyseal lesions range from slight changes in the cortices to well marked, symmetrical osteomyelitic lesions involving a large area of the shaft. A number of the cases show periosteal changes. Definite evidence of the process of healing is shown in epiphyseal separations and in osteomyelitic lesions. All in all, the specimens consist of nearly every variety of pathologic change of the bone in congenital syphilis of the first months of life. The study of the roentgenograms in conjunction with the pathologic material has made quite clear and simple the explanation of changes in the bone seen by the roentgen rays which formerly were obscure. After one has scrutinized a roentgen film of a syhilitic infant with the naked eye and the reading glass, careful study of the material presented should lead to a fairly complete picture of the underlying pathologic changes.

American Journal of Pathology, Boston

7: 87-185 (March) 1931

Primary Liposarcoma of Bone. F. W. Stewart, New York.—p. 87.
*Pathologic Study of Case of Endemic Typhus in Virginia with Demonstration of Rickettsia. H. Pinkerton and K. F. Maxcy, Richmond, Va. —p. 95.
Congenital Rhabdomyoma of Heart. S. Farber, Boston.—p. 105.
Supravital Staining with Silver Ammonium Carbonate. F. A. McJunkin, Chicago.—p. 131.
Susceptibility of Gopher (Citellus Tridecemlineatus) to Mycobacterium Tuberculosis. W. H. Feldman, Rochester, Minn.—p. 139.
Pathologic Changes Following Experimental Exposure of Dogs to Mycobacterium Tuberculosis of Avian Origin. W. H. Feldman, Rochester, Minn.—p. 147.
*Primary Neoplasm of Heart Valve. C. F. Branch, Boston.—p. 157.
Chondrosarcoma with Intravascular Growth and Tumor Emboli to Lungs. S. Warren, Boston.—p. 161.
Hemorrhagic Pancreatitis: Two Cases in Which Gallstones Could not be Considered Essential Etiologic Factors. V. J. Dardinski, Rochester, Minn.—p. 169.
Intestinal Adenoma in Swine. H. E. Biester and L. H. Schwarte, Ames, Iowa.—p. 175.

Endemic Typhus: Rickettsia.—In the study of a fatal case of endemic typhus in Virginia, Pinkerton and Maxcy established the complete pathologic identity of the disease with European typhus. Characteristic brain lesions were fully as numerous as in the average case of European typhus, and many of these lesions were unusually acute. Involvement of the tunica vaginalis and scrotum was no more marked than in European typhus. *Rickettsia prowazeki* was easily and clearly demonstrated in the endothelial cells of the vascular lesions in the brain but was not found in macrophages or neuroglial cells. A technic is described for the demonstration of *Rickettsia* in brain material fixed in formaldehyde solution. The demonstration of *Rickettsia prowazeki* in this material is to be added to the already overwhelming evidence in favor of their etiologic relationship to typhus.

Primary Neoplasm of Heart Valve.—Branch describes a papillary fibroma of the tricuspid valve. The tumor, like the valve, contained no blood vessels. Every papillary stalk of the tumor was composed of a single or compound core of dense collagen fibrils surrounded by loose connective tissue, outside which was a layer of homogeneous material covered by endothelium. The tumor seemed to show a gradual growth and transformation of fibroblasts, starting in the homogeneous layer and ending in dense fibrous tissue. A similar homogeneous layer occurred beneath the endothelium lining the valve.

American Journal of Physiology, Baltimore

96: 509-720 (March) 1931

Influence of Urea on Blood Clotting: Tissue Fibrinogen Clotting and Tissue Fibrinogen. J. H. Foulger and C. A. Mills, Cincinnati.—p. 509.
Basal Metabolism of Maya Indians in Yucatan. G. C. Shattuck and F. G. Benedict, Boston.—p. 518.
Physiology of Exercise: Acid-Base Changes in Serum of Exercised Dogs. H. A. Rice and A. H. Steinhaus, Chicago.—p. 529.
New Chart for Interpretation of Acid-Base Changes and Its Application to Exercise. A. B. Hastings and A. H. Steinhaus, Chicago.—p. 538.
Osmotic Pressure, Bound Water and Edema in Perfused Hearts. J. M. Ort and J. Markowitz, Rochester, Minn.—p. 541.
Effect of Different Per Cents of Protein in Diet: Growth. J. R. Slonaker, San Francisco.—p. 547.
Id.: Spontaneous Activity. J. R. Slonaker, San Francisco.—p. 557.
Viscosity of Blood in Narrow Capillary Tubes. R. Fåhraeus and T. Lindqvist, Upsala, Sweden.—p. 562.
Water Exchanges of Frogs With and Without Skin. E. F. Adolph, Rochester, N. Y.—p. 569.
Osmosis into Frog Skin, and Effects of Isolation, of Orientation and of Blood's Circulation. E. F. Adolph, Rochester, N. Y.—p. 587.
Initial Rates of Swelling of Isolated Muscle and Their Relation to Osmotic Exchanges Within Frog. E. F. Adolph, Rochester, N. Y. —p. 598.
Effect of Anoxemia, Carbon Dioxide and Lactic Acid on Electrical Phenomena of Myelinated and Unmyelinated Fibers of Autonomic Nervous System. P. Heinbecker and G. H. Bishop, St. Louis.—p. 613.
Uterus-Ovary Relationship and Its Bearing on Time of Ovulation in Primates. H. M. Evans and O. Swezy, Berkeley, Calif.—p. 628.
Effects of Posterior Pituitary Extracts on Basal Metabolism. H. E. Himwich and F. W. Haynes, New Haven, Conn.—p. 640.
Bronchial Reflexes in Guinea-Pig. M. W. Binger, F. W. Gaarde and J. Markowitz, Rochester, Minn.—p. 647.
Epinephrine Action in Relation to Hydrostatic Pressure Effect on Contraction of Cardiac Muscle. M. Cattell and D. J. Edwards, New York.—p. 657.
Comparative Toxicity of Blood After Arteriotomy, Asphyxiation and Injuries to Brain. D. I. Macht, Baltimore.—p. 662.
Motor Activity of Large Intestine: Normal Motility in Dog, Recorded by Tandem Balloon Method. R. D. Templeton and H. Lawson, Chicago. —p. 667.
Effect of Estrin Administration on Reproductive and Blood Vascular Systems: Thyroid, Thymus, Hypophysis, Adrenals, Kidneys, Liver and Spleen. M. M. Kunde, F. E. D'Amour, R. G. Gustavson and A. J. Carlson, Chicago.—p. 677.
Physiology of Liver: Utilization of Fructose Following Complete Removal of Liver. J. L. Bollman and F. C. Mann, Rochester, Minn.—p. 683.
Studies on Physiology of Liver: Detoxicating Function of Liver; Strychnine. J. T. Priestley, J. Markowitz and F. C. Mann, Rochester, Minn. —p. 696.
Id.: Rôle of Liver in Formation of Lymph. C. Markowitz and F. C. Mann, Rochester, Minn.—p. 709.

American J. Roentgenol. & Rad. Therapy, New York

25: 299-436 (March) 1931

*Tuberculosis of Intervertebral Articulations. H. P. Doub and C. E. Badgley, Detroit.—p. 299.
*Conditions Commonly Called Colitis. J. A. Bargen, Rochester, Minn. —p. 308.
Congenital Idiopathic Enlargement of Heart. G. W. Holmes, Boston. —p. 320.
*Chronic Hyperplastic Tuberculosis of Colon. S. J. Goldfarb and M. L. Sussman, New York.—p. 324.
*Irregular Ossification of Extremities of Boys and Girls. Ruth Otis Sawtell, New York.—p. 330.
Roentgenologist in Industrial Surgery. E. C. Sampel and E. R. Bowie, New Orleans.—p. 336.
Malpractice Hazards of Roentgen Ray and Insurance Against Them. H. F. Wanvig, New York.—p. 340.
*Uterine Hemorrhage Without Demonstrable Pathology. C. L. Martin, Dallas, Texas.—p. 349.
Results of Treatment of Carcinoma of Cervix: 417 Cases. B. F. Schreiner and L. C. Kress, Buffalo.—p. 359.
Technic of Radium and Roentgen Treatment of Carcinoma of Uterus. H. Schmitz, Chicago.—p. 364.
Treatment of Tumors of Bladder. J. A. C. Colston, Baltimore.—p. 375.
Megaduodenum. C. G. Lyons, Hines, Ill.—p. 381.

Tuberculosis of Intervertebral Articulations.—According to Doub and Badgley, tuberculous infection of the spine usually occurs by the hematogenous route. The various types

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of spinal involvement are described depending on the blood supply. Emphasis is laid on tuberculous involvement of the intervertebral articulations. In this type early clinical diagnosis is difficult because of lack of deformity, and the roentgen examination must be the chief reliance for early diagnosis. The early roentgen signs are narrowing of the intervertebral disk together with erosion of the articular surfaces, but with preservation of the body form. Three typical case histories are presented.

Conditions Commonly Called Colitis.—Bargen states that the word "colitis" has frequently been used to describe various types of intestinal dysfunction in which there is no demonstrable organic disease of the large intestine. In cases of suspected intestinal disease, a painstaking and detailed anamnesis is of first importance. When discomfort or pain is present in the lower part of the abdomen, the possibility of some disorder of the colon requires consideration. A regular routine of objective investigations is of great value in determining the presence or absence of disease. Roentgen studies have value in excluding from consideration intestinal neurosis, which may be expressed in the conditions known as mucous colitis, spastic colitis and irritable colon. Colitis is an inflammatory disease of the colon and should not be diagnosed until thorough investigation has shown that inflammation, nothing less and nothing more, is present. Some other term, suggestive of part of a general bodily state, perhaps irritable colon, should designate the noninflammatory colonic disorders.

Chronic Hyperplastic Tuberculosis of Colon.—The literature on chronic hyperplastic tuberculosis of the colon is reviewed by Goldfarb and Sussman. Three cases of the disease are presented, two of which were proved at operation. The danger of making etiologic diagnoses of stenosing lesions of the colon is emphasized. In the early manifestations of even hyperplastic tuberculosis, spasticity may be the roentgen observation.

Irregular Ossification of Extremities.—Roentgenograms of the hands and feet of 717 children from private schools in different parts of the country were studied by Sawtell. She found that irregularities in the ossification of the extremities appear frequently on the roentgenograms of the so-called normal child. They are of two types, supernumerary centers and double epiphyses, and proximal epiphyses where only distal epiphyses are expected. Both kinds are more common in the foot than in the hand but disappear there more quickly because of a more rapid rate of ossification. The incidence is higher in males than in females, and union and disappearance are slower; this is in accord with the normal sex difference in ossification.

Uterine Hemorrhage Without Demonstrable Pathologic Changes.—Martin asserts that chronic uterine hemorrhage occurring in women without demonstrable pelvic pathologic changes is a common condition. Experimental evidence and operative material indicate that the etiologic factor is some abnormality of the endocrine system. An artificial menopause produced by radiation therapy, coupled with an anemia diet and iron medication, brings about excellent results in women over 40 years of age. In younger women a return to normal health is usually obtained through a combination of a small dose of intra-uterine radium with roentgen irradiation of the pituitary body, an anemia diet, an iron tonic, an improved mode of living and the administration of glandular products.

Archives of Dermatology & Syphilology, Chicago

23: 601-828 (April) 1931

*Phytopharmacology of Pemphigus and Other Dermatoses. I. R. Pels and D. I. Macht, Baltimore.—p. 601.
*Esophylaxis. O. L. Levin and S. H. Silvers, New York.—p. 614.
*Appraisal of Newest Arsphenamine Synthetic, Bismarsen, in Treatment for Syphilis. J. H. Stokes, T. H. Miller and H. Beerman, Philadelphia.—p. 624.
*Local Medication in Diseases of Skin. E. W. Abramowitz, New York.—p. 644.
Remarkable Medicine Guaiacum and Cure of Gallic Disease. U. Von Hutten, Translated by C. W. Mendell, New Haven, Conn.—p. 681.
Melanotic Pigment in Skin, Hair and Eye of Gray Rabbit. S. M. Peck, New York.—p. 705.

Phytopharmacology of Pemphigus.—In this second report of the examination of blood serum from approximately sixty additional cases of pemphigus, Pels and Macht have been able to confirm their preliminary readings; namely, a greater toxicity for plant protoplasm as compared with that of normal serums. This toxicity, however, is not uniform in about 9 per cent of the cases, less than one in ten. A more or less comprehensive criticism of the method, with discussion of probable errors, is also submitted. The method apparently serves to differentiate pemphigus from typical dermatitis herpetiformis. The relationship of erythema multiforme, including the bullous type, to pemphigus is discussed. The former disease may exhibit some toxicity at times as measured by this procedure. A table of one such case, with seventeen estimations, is submitted. A second table of twenty-two cases is exhibited to reveal the close relationship of the two diseases. This naturally leaves the question of a condition of potential pemphigus or an evanescent toxic factor in the blood serum of erythema multiforme open to speculation. A method of procuring serum, or serum and lymph, directly from the skin is mentioned. This material has been studied in a number of cases, and it has been found that such fluid exhibits a less toxic character than does the blood, particularly in the same person.

Esophylaxis.—Levin and Silvers state that esophylaxis is the term used by Hoffmann to designate a hypothetic defensive function of the skin. An extensive literature has been accumulating since Kreidl expounded the theory in 1904. Many of the writers on the subject believe that this defensive action of the skin may be stimulated by a cutaneous reaction as it occurs in exfoliative dermatitis from arsphenamine. On the other hand, it is by no means a unanimous opinion of the writers that the favorable clinical and serologic results of postarsphenamine exfoliative dermatitis are permanent. The authors review the literature on the subject, adding a group of their own cases that have been studied. From this they conclude that further observation of cases of postarsphenamine dermatitis is necessary to substantiate the hypothesis that such a defensive mechanism of the skin as described and termed "esophylaxis" does exist. But finally it must be emphasized that danger menaces those who accept the improvement or apparent cure from postarsphenamine dermatitis as permanent. Following the dermatitis, cautious antisyphilitic treatment should be reinstituted in all cases.

Bismuth Arsphenamine Sulphonate in Syphilis.—Stokes and his associates believe that the field of greatest promise for bismuth arsphenamine sulphonate is that of early syphilis. In this field they commend its use in continuous treatment, without rest intervals, two injections a week, to as near forty injections as possible. Attention to technical detail, while it need not be excessive, facilitates the use of the drug in this way. Massage and hot applications are items of importance and should not be regarded as beneath the therapeutist's notice. The relative simplicity of administration, the comparative rarity of complications, the low proportion of relapse in the most significant phase of the disease, from the standpoint of both the individual and the public health, all seem to point to bismuth arsphenamine sulphonate as a practitioner's advance in the control of syphilis.

Local Medication in Diseases of Skin.—Abramowitz emphasizes the importance of remembering that the choice of a remedy in ambulatory patients should be modified by expediency, the most suitable method being used while the patient is at rest and the most convenient while the patient is occupied. When the dermatitis is very acute, i. e., when the skin is red, swollen or weeping (acute erythema and acute dermatitis), soothing applications, such as baths, lotions, wet dressings and sprays, are indicated. If a moist dressing is not tolerated, some dry powder may be used instead. Some persons will tolerate only an application of plain lard or an olive oil-lime water liniment. When the skin is only moderately inflamed, as in a mild papular dermatitis or during the quiescent stage of an infantile eczema, recourse is had to the pastes, creams or watery pastes. If more energetic action is required, as in chronic eczematized tinea, an ointment may be used or even a plaster. If the itching is intense, one can use an aqueous or alcoholic solution, wash or powdery lotion, to which are added either boric acid, phenol, resorcinol, salicylic acid, acetic acid, dilute hydrocyanic acid or menthol, camphor water, chloral hydrate, betanaphthol or some of the tars, such as the oil of pine or oil of birch. Several of these antipruritic agents may be combined, but it is not advisable to use salicylic acid, resorcinol or those of alcoholic content when

any open lesions are present. In the latter instance, "the zinc paste" of the National Formulary (without the salicylic acid) or the glycerite of starch is preferable. When the skin is dry and not so irritable, as in the lichenifications, an ointment containing an active reducing agent, such as tar, is usually found to be effective.

Archives of Neurology and Psychiatry, Chicago

25: 679-936 (April) 1931

Intramedullary Tumors of Spinal Cord. J. W. Kernohan, H. W. Woltman and A. W. Adson, Rochester, Minn.—p. 679.
The Cerebellum. A. T. Mussen, Baltimore.—p. 702.
*Disseminated Encephalomyelitis: Relation to Other Infections of Nervous System. R. R. Grinker and P. Bassoe, Chicago.—p. 723.
*Encephalitis and Encephalomyelitis in Measles: Pathologic Report of Six Cases. A. Ferraro and I. H. Scheffer, New York.—p. 748.
*Cerebellar Hemangioblastomas with Incidental Changes of Spinal Cord. C. Davison, W. Schick and S. P. Goodhart, New York.—p. 783.
Primary Melanoblastosis of Leptomeninges and Brain. F. J. Farnell, Providence, R. I., and J. H. Globus, New York.—p. 803.
Hypothalamus: Segmental Structure and Regulator of Glandular Activity and Metabolism. W. M. Kraus, New York.—p. 824.
Handedness and Eyedness of Speeders and of Reckless Drivers. C. Quinan, San Francisco.—p. 829.
*Pupillary Disturbances in Schizophrenic Negroes. P. Schilder and S. Parker, New York.—p. 838.

Disseminated Encephalomyelitis.—Grinker and Bassoe state that either clinicians have become more observant of various types of infections of the central nervous system in the last decade or there has been a decided increase in the number of such infections. Since the pandemic of encephalitis, postvaccinal encephalitis has become a definite entity; encephalitis following measles, variola and varicella has been called to attention, and disseminated encephalomyelitis has definitely increased. In view of the frequent pathologic comparisons of one form of supposed virus encephalitis with another and their classification into probable etiologic types, the authors report several recent examples of encephalomyelitis, compare them with examples of other forms of encephalitis that they have personally studied, propose a broad pathologic classification, and outline the etiologic conclusions that are justifiable in the light of present knowledge.

Encephalitis and Encephalomyelitis in Measles.—Ferraro and Scheffer report the pathologic changes in six cases in which death occurred as the result of nervous complications in the course of measles infection. From a histopathologic standpoint, the six cases showed lesions that were practically the same in all. They consisted mainly of a perivascular proliferation formed especially by microglial elements. In some of the cases there were scattered elements of hematogenous nature in the perivascular areas. These elements were mainly lymphocytes but occasionally plasma cells. The perivascular hematogenous elements were never of great importance, and in some cases there was no trace of them in all the material studied. The perivascular proliferation was dominantly located in the white substance, where it formed large islands. The cortex, however, was involved by the same process, although to a much less extent. Accompanying the perivascular proliferation there was a concomitant perivascular demyelinization, which forms another characteristic of the pathologic process. Lesions involving the axis cylinders were to be expected in demyelinated areas and have been reported in all the authors' cases. Less characteristic was the macroglial reaction with both its progressive and its regressive changes. A fact that has not been emphasized sufficiently in the reports of other authors is the frequency of thrombi (red thrombi) and the occurrence of vascular changes, swelling or hyperplasia of the endothelium. Although these manifestations are not dominant they are undoubtedly present, and their existence may help to explain the pathogenesis of the lesions. They certainly point to a participation of the vascular system in the process, and this fact, associated with the one that most of the lesions are perivascular in topography, justifies the hypothesis that, whatever noxious agent is the cause of the lesions, this agent is carried from the blood vessels to the surrounding tissue and is favored by an abnormal permeability of the protective wall and stasis of the venous system.

Cerebellar Hemangioblastomas with Changes of Spinal Cord.—Two cases of cerebellar hemangioblastoma with some unusual changes in the spinal cord, which led to difficulties in diagnosis and especially in therapeusis, are presented by Davison and collaborators. Case 1 was complicated by the presence of multiple sclerosis. A careful study of the changes in the cord in case 2 has not brought the authors to a conclusion regarding its etiology. It is thought that when a cerebellar neoplasm is suspected, in spite of other changes in the central nervous system, a suboccipital exploration should be made.

Pupillary Disturbances.—Schilder and Parker report pupillary changes in catatonia as being much more frequent in Negroes than in white persons. A constitutional factor appears to be essentially responsible, and it is probable that this factor concerns the pupillary apparatus as such. Pupillary changes of the so-called catatonic type may be observed in any pupil which is affected by a toxic or an organic lesion of a slight degree. The authors found them particularly in cases of intoxication with alcohol, scopolamine hydrobromide and morphine. The phenomena are due to a coincidence of constitutional, psychic and anatomic-toxic factors.

Colorado Medicine, Denver

28: 143-192 (April) 1931

Coronary Thrombosis. C. T. Burnett, Denver.—p. 146.
Preoperative and Postoperative Care of Surgical Cases. L. Little, Fort Collins.—p. 154.
Routine Use of "Shock Blocks" as Preventive Measure for Postoperative Shock. D. Prey, Denver.—p. 158.
Conservative Obstetrics in Modern Sense. G. Heusinkveld, Denver.—p. 160.
Country Doctor and Diabetes. C. H. Platz, Fort Collins.—p. 163.
Some Preliminary Observations on Denver's Infant Mortality Study. A. D. H. Kaplan, Denver.—p. 165.
Importance of Early Diagnosis in Appendicitis. L. Freeman, Denver.—p. 169.
Diagnosis of Arteriosclerosis with Aid of Ophthalmoscope. M. E. Marcove, Denver.—p. 171.

Florida Medical Association Journal, Jacksonville

17: 403-448 (March) 1931

Massive Collapse of Lung. W. M. Shaw, Jacksonville.—p. 413.
Spinal Anesthesia as an Ideal. J. R. Wells, Daytona Beach.—p. 416.
Von Recklinghausen's Disease: Case with Surgical Complications. K. A. Morris, Jacksonville.—p. 420.
Direct Observation of Rupture of Graafian Follicle in Mammal. G. L. Kelly, Augusta.—p. 422.
Endemic Typhus Fever. S. A. Clark, Lakeland.—p. 424.
Why Oculist Should Do Refractions in Patients with Lowered Vision. E. W. Peery, West Palm Beach.—p. 425.
Classification of Arthritis: Chronic Infectious Type. S. H. Etheredge, Tampa.—p. 427.

Georgia Medical Association Journal, Atlanta

20: 87-124 (March) 1931

Surgery of Thyroid Gland: Some Unusual Problems. C. E. Waits, Atlanta.—p. 87.
Endemic Typhus. S. T. R. Revell, Louisville.—p. 93.
Tularemia. S. E. Sanchez, Barwick.—p. 96.
Breast Cancer. W. F. Lake and A. J. Ayers, Atlanta.—p. 99.
Findings in Eighty-Five Health Examinations. G. G. Lunsford, Cordele.—p. 102.
Fundamentals of Roentgen Ray Therapy. B. L. Harbin, Rome.—p. 105.
Methods Adopted as Substitutes for Sanitation in Control of Typhoid Fever and Hookworm in Georgia. H. B. Jenkins, Thomasville.—p. 108.

Journal of Allergy, St. Louis

2: 137-204 (March) 1931

*Artificial Sensitization of Infants to Poison Ivy. H. W. Straus, Brooklyn.—p. 137.
*Effect of Weather Variations on Symptoms of Hay-Fever Patients. Marjorie Hopkins, New York.—p. 145.
*Death in Asthma: Case with Necropsy. A. M. Fisher and J. P. Beck, New York.—p. 149.
Soluble Specific Carbohydrate of Ragweed Pollen. J. H. Black, Dallas, Texas.—p. 161.
*"Physical Allergy": Case with Successful Treatment. H. L. Alexander, St. Louis.—p. 164.
Studies on Pollen and Pollen Extracts: Adsorption of Allergically Active Constituents from Pollen Extracts. M. B. Moore and E. E. Moore, Indianapolis.—p. 168.
Toxic Fraction in Certain Eczema Serums. F. S. Smyth, San Francisco.—p. 173.
Study of Allergic Skin-Test Substance. F. S. Smyth, San Francisco, and K. Bain, St. Louis.—p. 177.
Studies in Passive Transfer. F. S. Smyth, San Francisco, and K. Bain, St. Louis.—p. 181.
Urticaria Due to Grass Pollen. S. J. Taub and C. White, Chicago.—p. 186.

Artificial Sensitization of Infants to Poison Ivy.—Straus believes that new-born infants may be artificially sensitized to poison ivy by sufficient skin contact with a potent

extract. The skin is generally sensitized. The insusceptibility to poison ivy heretofore observed in children under the age of 3 years was not due to a lack of mechanism but was due to a lack of previous contact or a lack of sufficient contact. If the sensitizing contact is adequate, infants will react with a positive patch test in approximately the same percentage as adults.

Effect of Weather Variations on Symptoms of Hay-Fever Patients.—Hopkins presents charts that show that days with high humidity, precipitation and a low temperature are the days on which there is the least amount of pollen in the air, and consequently a lessening of the symptoms in the patient. Days with a low humidity, no rainfall and a relatively high temperature show an increase in the dissemination of the ragweed pollen.

Death in Asthma.—Fisher and Beck present the case of a man, aged 32, with a typical history of asthma for two years. No definite allergic etiologic substance was found, but his allergy was thought to be bacterial in origin, and he apparently died of asphyxia during an acute attack. Small holes were found in both lungs with an escape of air into the pleural cavities, but without collapse of the lungs. The microscopic picture in the lungs was characteristic of that described in asthma, the chief pathologic changes being in the bronchioles; namely, plugging of the narrowed lumens of the bronchioles with thick mucus containing many eosinophils and Curschmann's spirals, great infolding of the mucosa of the bronchioles, a thickened hyalinized basement membrane, hypertrophy of the muscle wall, and infiltration of the mucosa, submucosa and mucous glands with many eosinophils and plasma cells. The tracheal mucosa contained a similar infiltration. There were also present marked emphysema and hypertrophy of the right ventricle.

"Physical Allergy."—Alexander reports a case in which a woman, aged 53, had been subject to hives for twenty-five years. The attacks came on after moderate exertion and overheating. Physical examination revealed a moderate arterial hypertension, and a dermographism which did not permit skin tests. The patient's tolerance to exertion and excessive warmth was determined and found to be low. From data available from experiments and from treatment in a few similar cases, it was inferred that the mechanism underlying urticarial production could be exhausted. The patient was therefore subjected to immersion in warm water. This was followed by an intense urticarial eruption. The water temperature and length of immersion were gradually increased and the symptoms correspondingly diminished until the patient finally became tolerant to heat and exercise and experienced no further symptoms.

Journal of Experimental Medicine, Baltimore

53: 447-590 (April 1) 1931

*Etiology of Acute Upper Respiratory Infection (Common Cold). P. H. Long, J. A. Doull, J. M. Bourn and E. McComb, Baltimore.—p. 447.

Variation and Type Specificity in Bacterial Species Hemophilus Influenzae. M. Pittman.—p. 471.

Studies on Typhus Fever: Active Immunization Against Mexican Typhus Fever with Dead Virus. H. Zinsser and M. R. Castaneda, Boston.—p. 493.

*Induction of Lymphocytosis and Lymphatic Hyperplasia by Means of Parenterally Administered Protein. B. K. Wiseman, Indianapolis, Ind.—p. 499.

Experimental Acute Glomerulitis. F. D. W. Lukens and W. T. Longcope, Baltimore.—p. 511.

Studies on Immunologic Relationships Among Pneumococci: Anaphylaxis and Precipitation Between Antigens and Antiserums of Yeast of Type II Pneumococci. J. Y. Sugg and J. M. Neill, Nashville.—p. 527.

*Epidemiology of Pneumococcus Infection: Incidence and Spread of Pneumococci in Nasal Passages and Throats of Healthy Persons. L. T. Webster and T. P. Hughes, New York.—p. 535.

Potent Antipoliomyelitic Horse Serum Concentrate and Its Experimental Use in Infected Monkeys. E. R. Weyer, W. H. Park and E. J. Banzhaf, New York.—p. 553.

Factors Involved in Production of Immunity with Pneumococcus Vaccine: Induction of Active Immunity During Course of Lobar Pneumonia. A. L. Barach, New York.—p. 567.

Etiology of Common Cold.—Long and his associates transmitted experimental upper respiratory infections similar to "common colds" singly and in series through two and four passages in nine out of fifteen persons, by intranasal inoculations with bacteria-free filtrates of nasopharyngeal washings obtained from persons ill with natural "colds." These observations conform with those reported by previous workers and lend further support to the view that the incitant of the "common cold" is a filtrable virus.

Induction of Lymphocytosis and Lymphatic Hyperplasia by Parenterally Administered Protein.—Wiseman reports that repeated parenteral protein injections by various routes in a series of twelve rabbits caused an increase of lymphocytes in the peripheral blood varying from 23 to 139 per cent. It seems probable that the degree of response is conditioned on the type of protein used. At necropsy the lymph nodes and spleen showed hyperplastic changes. The thymus did not participate in the hyperplasia.

Epidemiology of Pneumococcus Infection.—Webster and Hughes obtained pneumococci at one time or another from the nasal passages or throats of 80 per cent of 105 adults and children studied. In adults, they were obtained more frequently from the throat; in children, as often from the nasal passages as from the throat. Of 500 pneumococcus strains studied, 97 per cent proved to be serologically specific. They formed smooth colonies and were for the most part avirulent for mice. Types I and II were obtained from one and two persons respectively on one occasion only. Type III was obtained from nine persons; type XIII from nine persons; type XVI and type XVIII from three persons, for varying periods in each case. Atypical pneumococci were secured from thirteen persons on single and scattered occasions. They varied in colony morphology and did not kill mice or agglutinate in physiologic solution of sodium chloride but flocculated in all types of antipneumococcus serum employed and over a wide p_H range in acid buffers. Their occurrence was apparently not associated with any type transformation or virulence-enhancement process in vivo. Strains of pneumococcus obtained on successive cultures from a given carrier were, with rare exceptions, of the same serologic type and were similar in colony morphology, virulence for mice, and other tested biologic characteristics. Pneumococci of types I and II were obtained under conditions suggestive that they lacked a capacity to spread readily; pneumococci of types III and XIII, on the other hand, were obtained under conditions suggestive that they were spreading from person to person. The persons studied differed consistently with respect to the occurrence of pneumococci. Some were pneumococcus free, some were transient carriers, some periodic, and some chronic carriers. Data are given which suggest that the differences were due to variations in host resistance. The incidence of pneumococci in all persons studied underwent a seasonal variation paralleling that of coryza and sore throats in the same persons.

Journal of Laboratory and Clinical Medicine, St. Louis

16: 539-640 (March) 1931

*Apparent Specificity Among Streptococci and Cause of Some Failures of Mixed Streptococcus Vaccines in Treatment of Chest Colds and Asthma. I. C. Walker, Boston.—p. 539.

*Active Immunization Against Typhoid Fever, with Particular Reference to Intradermal Method. L. Tuft, Philadelphia.—p. 552.

*Glucose Tolerance in Pernicious Anemia. T. A. C. Rennie, Ann Arbor, Mich.—p. 557.

Effect of Repeated Injections of Sodium Iso-Amyl-Ethyl Barbiturate on Various Viscera. I. S. Ravdin, D. L. Drabkin and A. E. Bothe, Philadelphia.—p. 561.

Case of Localized Leukosarcomatosis of Ascending Colon and of Cecum. E. Weiss, Chicago.—p. 567.

Gingivitis: IX. Rôle of Infection in Gingivitis. R. A. Keilty, Washington, D. C.—p. 570.

Tests for Protein in Urine, Especially Bence-Jones. E. E. Osgood and H. D. Haskins, Portland, Ore.—p. 575.

Test of Haden-Hausser Hemoglobinometer. J. Razek, Philadelphia.—p. 583.

Experimental Esophageal Fistula. C. A. Dragstedt and R. B. Mullenix, Chicago.—p. 591.

Simple Stain for Metachromatic Granules. H. A. Kemp, Dallas, Texas.—p. 593.

Comparative Study of Blood Protein Precipitants. E. K. Doak, G. Boone and F. Paquin, Jr., Houston, Texas.—p. 594.

Indirect Blood Pressure Readings in Dogs: Description of Method and Report of Results. H. W. Ferris and J. F. Haynes, New Haven, Conn.—p. 597.

Rapid Inexpensive Method for Preparing Permanent Tissue Sections. W. M. Simpson and H. H. Kreager, Dayton, Ohio.—p. 611.

Percussion Bell for Studying Sound Transmission in Chest. B. Gordon, Philadelphia.—p. 617.

Technic for Constant Supply of Guinea-Pig Heart Antigen. P. J. Manheims and I. S. McGrath, New York.—p. 619.

Suggestions for Hanging Drop Preparations. J. B. McNaught, San Francisco.—p. 620.
Some Refinements on the Colorimetric Method of Hastings and Sendroy for Determination of p_H of Blood. J. W. Schoonover and G. E. Woodward, Philadelphia.—p. 621.
Heart Sound Amplifier. R. A. Waud, London, Canada.—p. 624.
Use of Solid Carbon Dioxide (Dry-Ice) in Freezing of Tissues for Microtome Sectioning. F. L. Dunn, Omaha.—p. 627.
Clinical Method for Estimation of Urine Sugar. J. E. Cook and A. Steiner, St. Louis.—p. 629.

Apparent Specificity Among Streptococci.—Walker shows that, in some patients in whom a mixed vaccine comprising the more prevalent varieties of streptococci failed, the failure was due to the presence of an insufficient quantity of the particular causative streptococcus in the mixed vaccine; in other words, relief followed the larger amounts of the causative streptococcus that were present in the autogenous vaccine than were present in the mixed vaccine. In other patients, failure of the mixed vaccine was due to the fact that the present illness was caused by one or more of the less prevalent streptococci that were not present in the mixed vaccine. The results in all the eighty-nine patients treated by the author are against any nonspecific effect of vaccines and, to the contrary, support specificity. In many instances, vaccine treatment was undoubtedly specific and showed a specificity among the common streptococci.

Immunization Against Typhoid.—Having demonstrated experimentally that the immunologic response occurring after intradermal injections of small doses of triple typhoid vaccine was as good as that produced by larger doses given by the subcutaneous or intramuscular route, Tuft has adopted the following routine method in the prophylactic immunization of persons against typhoid: the administration at intervals of from five to seven days of four doses of a freshly prepared (or not more than two months old) triple typhoid vaccine containing one billion typhoid organisms of known antigenic potency and 500 million each of paratyphoid A and B organisms and given by intradermal injection into the upper arm, the first dose being 0.05 cc., the second 0.1 cc., the third 0.15 cc. and the fourth 0.2 cc. In a series of more than 100 persons, this method was found to give satisfactory immunologic response, as indicated by the agglutination reaction, to be extremely easy of performance and, more important, to produce considerably less local reaction with almost complete elimination of the annoying constitutional symptoms that follow other methods of administration.

Dextrose Tolerance in Pernicious Anemia.—Dextrose tolerance studies were made by Rennie in nineteen patients with pernicious anemia. Eleven, or 58 per cent, showed abnormal curves. This abnormality bears no relation to hemoglobin percentage, erythrocyte count, weight, age, temperature, or pulse rate. Six patients were studied before the treatment was begun; 83 per cent of these showed abnormal curves with decreased tolerance. Six patients were studied during their "reticulocyte response"; 50 per cent of these showed abnormal curves with decreased tolerance. Seven were studied after the return of the erythrocyte count approximately to normal; 37 per cent of these showed abnormal curves with decreased tolerance. Improvement of the blood in all these patients induced by treatment with from 30 to 40 Gm. of desiccated defatted hog stomach was accompanied by increased dextrose tolerance. The definitely frequent occurrence of disturbed dextrose tolerance in pernicious anemia would point to a similarity between certain features of this disease process and diabetes mellitus.

Journal of Nervous and Mental Disease, New York

73: 353-464 (April) 1931

Historical Phases of Manic-Depressive Synthesis. S. E. Jelliffe, New York.—p. 353.
Histopathology of Experimental Diabetes Insipidus. F. J. Warner, Madison, Wis.—p. 375.
Some Present-Day Trends in Teaching of Psychiatry. F. G. Ebaugh, Denver.—p. 384.
Case of Paget's Disease (Osteitis Deformans) Complicated by Tumor of Nasopharynx with Involvement of Cranial Nerves and Gasserian Ganglion. P. H. Garvey, Rochester.—p. 395.
Medical Aspects of Malaria Therapy in Neurosyphilis. G. S. Johnson and R. A. Jefferson, Denver.—p. 405.

Journal of Nutrition, Springfield, Ill.

3: 453-536 (March) 1931

Blood Studies in Hemorrhagic Anemia. H. S. Mayerson and H. Laurens, New Orleans.—p. 453.
Effects of Radiant Energy on Hemorrhagic Anemia. H. Laurens and H. S. Mayerson, New Orleans.—p. 465.
Mineral, Nitrogen and Fat Content of Some Varieties of Mature Bean Seed and of String Beans. J. S. McHargue and W. R. Roy, Lexington, Ky.—p. 479.
Validity of Family Coefficients. E. P. Cathcart and A. M. T. Murray, Glasgow, Scotland.—p. 483.
Vitamin Studies: Biologic Assay of Food Materials for Vitamin A as Influenced by Yeast from Various Sources. H. E. Honeywell, R. Adams Dutcher and J. O. Fly, State College, Pa.—p. 491.
Metabolism Room for Study of Rats Under Controlled Conditions of Light and Temperature. L. G. Wesson, Nashville, Tenn.—p. 499.
Metabolic Rate and Respiratory Quotients of Rats Following Ingestion of Dextrin and During Fasting. L. G. Wesson, Nashville, Tenn.—p. 503.

Medical Journal and Record, New York

133: 313-364 (April 1) 1931

Causation of Disease. W. A. Lincoln, Calgary, Alberta.—p. 313.
Medical Hydrology: Plea for Recognition of Importance of Mineral Waters as Therapeutic Agents. W. E. Fitch, French Lick, Ind.—p. 316.
Modern Conception of Deafness. H. Hays, New York.—p. 320.
Physical Aspects of Phototherapy. J. H. Hibben, Washington, D. C.—p. 322.
Chancre of Anus. A. A. Landsman, New York.—p. 328.
Psychic Value of Music and Color in Infant and Child Nutrition. G. D. Scott, New York.—p. 329.
Triradiate Cartilage in Its Relation to Head of Femur. D. D. Ashley, New York.—p. 331.
Complete Anterior Dislocation of Both Bones of Forearm at Elbow. M. M. Simon, Poughkeepsie.—p. 333.
Painful Disabilities of Knee Joint. M. B. Cooperman, Philadelphia.—p. 336.
General Principles of Fracture Management with Use of Local Anesthesia. L. S. Auster, New York.—p. 341.

Michigan State M. Soc. Journal, Grand Rapids

30: 255-318 (April) 1931

Neurologic Side of Hyperthyroidism. C. D. Camp, Ann Arbor.—p. 255.
Clinical Use of Viosterol. H. G. Poncher, Chicago.—p. 258.
Kidney Function Tests. F. H. Lashmet, Ann Arbor.—p. 260.
Gas-Bacillus Infection. J. C. Kenning, Detroit.—p. 262.
Duodenitis. A. R. Hufford, Grand Rapids.—p. 267.
Progressive Lipodystrophy. F. P. Currier and D. B. Davis, Grand Rapids.—p. 269.
Effect of Yeast Extract on Intestinal Secretion. E. B. Boldyreef, Battle Creek.—p. 271.
Simple Nonspecific Ulcer of Colon. V. W. Jensen, Shelby.—p. 274.
Mental Hygiene Movement. O. R. Yoder, Kalamazoo.—p. 275.
Training and Education of Mentally Deficient. H. A. Schneider, Lapeer.—p. 277.
Intracranial Birth Injuries: Incidence, Sequelae and Treatment. C. F. McClintic, Detroit.—p. 285.
Kidney Infections in Pregnancy. R. L. Cowen, Detroit.—p. 291.

Military Surgeon, Washington, D. C.

68: 455-590 (April) 1931

Malarial Control at Fort Stotsenburg. B. Norris.—p. 455.
United States Looking Outward. S. C. Vestal.—p. 465.
Training of C. M. T. C. Students by Reserve Corps Officers. W. C. Sandy.—p. 471.
Industry and National Defense. G. Van Horn Moseley.—p. 478.
Military*Medicolegal Psychiatry: Further Medicolegal Considerations. T. A. Williams.—p. 484.
Army Medical Service in Mindanao, 1927-1929. J. R. Darnall.—p. 492.
Case Report: Splenomegaly with Eosinophilia. W. H. Allen and W. C. Thro.—p. 503.
Outbreak of Septic Sore Throat. W. C. Cox and H. C. Colburn, Jr.—p. 508.

Minnesota Medicine, St. Paul

14: 289-388 (April) 1931

*Aortic Stenosis with Calcareous Nodules in Aortic Valves. E. L. Tuohy and P. F. Eckman, Duluth.—p. 289.
*Opinions of 470 Physicians in Regard to Advantages and Disadvantages of Using*Bran and Roughage. W. C. Alvarez, Rochester, Minn.—p. 296.
Some Points in Differential Diagnosis of Chest Diseases. J. A. Myers and L. M. Kernkamp, Minneapolis.—p. 301.
Problem of Functional Nervous Case. W. H. Hengstler, St. Paul.—p. 308.
*Leukoplakic Vulvitis or Kraurosis Vulvae: Its Relation to Carcinoma and Surgical Treatment. V. S. Counseller, Rochester, Minn.—p. 312.
Nonspecific Vaginitis. W. H. Condit, Minneapolis.—p. 319.
Diagnosis of Herpes Zoster Ophthalmicus. W. H. Fink, Minneapolis.—p. 322.
*Economic Importance of Squint in Children and Its Effect in After Years. F. N. Knapp, Duluth.—p. 324.

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Association of Peptic Ulcer and Cholecystic Disease. A. B. Rivers and J. B. Mason, Rochester, Minn.—p. 330.
Unusual Deficiency Syndrome Secondary to Duodenal Occlusion and Ulcerative Colitis. A. M. Snell, Rochester, Minn., and L. D. Bumgus, Grand Rapids, Mich.—p. 336.
Two Cases of Pellagra from Minnesota: One with Syndrome of Progressive Muscular Atrophy. H. O. Altnow, Minneapolis, and H. H. Jensen, Atwater, Minn.—p. 341.
Cosas Medicas Filipinas (Philippine Medical Affairs). R. T. Edwards, Elysian, Minn.—p. 346.

Aortic Stenosis.—Tuohy and Eckman present clinical and postmortem cases of greatly enlarged hearts with isolated pathologic changes in the aortic cusps inducing high grade aortic stenosis. Associated with this condition there has been constantly found an associated (secondary) easily demonstrable aortic insufficiency. The cusp distortion was due to nodular calcium deposits. This lesion and resulting syndrome can induce typical angina pectoris attacks in which the coronaries are undisturbed. A discussion is interpolated which emphasizes the importance and value of careful attention to heart outlines and (in clinical cases) presumptive weights. The idea of lifting the ban on the diagnosis of aortic stenoses in the absence of multiple valvulitis and a rheumatic history is suggested. Since no valve lesion can cope with aortic stenosis in thickening and enlarging the left ventricle there is incentive to investigate such large hearts for determinative evidence of that lesion. Its etiology can be found in calcareous nodule deposition in aortic cusps.

Use of Bran and Roughage.—Alvarez states that a study of the replies of 470 physicians to a questionnaire in regard to the advantages and disadvantages of using bran and roughage has shown clearly that the physicians of this country are not enthusiastic about the use of bran. They realize that it can relieve only a certain number of patients with constipation, and in them the relief is often temporary. Most of the physicians report also having seen indigestion and flatulence caused by the use of bran and other rough foods. In fact, many of them have seen so many instances of this that they now refuse to allow any of their patients with indigestion to take these foods. Almost all agree that the present propaganda for the addition of roughage to the diet has been more harmful than beneficial, and almost to a man they condemn the practice of school nurses and others who prescribe the same rough diet for every one and who offer prizes for the child who can eat the most spinach.

Leukoplakic Vulvitis.—According to Counseller, leukoplakic vulvitis is a disease of unknown origin and usually becomes manifest after the menopause. It is a progressive process, lasts for months or years, is characterized by hyperkeratosis, chronic infection and subepithelial fibrosis, and terminates in atrophy of the vulva or it may be associated with a malignant condition. The relation of leukoplakic vulvitis to carcinoma is not definitely known and will be solved only when the cause of carcinoma is discovered. The treatment in the early stage should consist of section of the internal pudic nerve. In the later stage, if a malignant growth is suspected, vulvectomy should be performed.

Squint in Children.—Knapp believes that effective treatment of squint must be carried out before the school age. Loss of vision of one eye from squint is a serious handicap. No physician should be guilty of advising parents that the child will outgrow the defect.

New England Journal of Medicine, Boston

204: 693-746 (April 2) 1931

Municipal Preventive Medicine: Boston's Program. C. F. Wilinsky, Boston.—p. 693.
Influence of Boston's Health Program on Practitioner. E. F. Timmins, Boston.—p. 698.
Boston Health League's Place in Boston's Health Program. G. C. Shattuck, Boston.—p. 702.
Hay-Fever Plants of Eastern Massachusetts. F. M. Rackemann, Boston, and L. B. Smith, Cambridge, Mass.—p. 708.
Ragweed Hay-Fever: Symptoms and Pollen Concentration Compared (1930). F. M. Rackemann, Boston, and L. B. Smith, Cambridge, Mass.—p. 711.
Public Health Aspects of Gonorrhea. T. Clark, Washington, D. C.—p. 713.
Reduction of Dislocations of Shoulder Joint. F. E. Clow, Wolfeboro, N. H.—p. 718.
Craniocerebral Injuries. J. S. Hodgson, Boston.—p. 720.

Philippine Islands M. Assn. Journal, Manila

11: 37-76 (Feb.) 1931

Tuberculosis, the Present-Day Problem in Philippines. A. Garcia, Manila.—p. 44.

Radiology, St. Paul

16: 435-626 (April) 1931

Skin Malignancy: Comments on Therapy. R. H. Stevens, Detroit.—p. 435.
*Effect of Roentgen Rays on Healing of Wounds: I. Behavior of Skin Wounds in Rats Under Preoperative or Postoperative Irradiation. E. A. Pohle, G. Ritchie and C. S. Wright, Madison, Wis.—p. 445.
Technic of Radiography by Gamma Rays. C. S. Barrett, R. A. Gezelius and R. F. Mehl, Anacostia, D. C.—p. 461.
Gastrojejunocolic Fistulas. H. W. Wiese, St. Louis.—p. 477.
Right Diaphragmatic Hernia. M. J. Geyman, Santa Barbara, Calif.—p. 483.
New Diaphragm for Complete Elimination of Secondary Radiation. A. L. Soresi, Brooklyn.—p. 486.
*Postoperative Behavior of Diaphragm. K. D. A. Allen, Denver.—p. 492.
Radiography by Use of Gamma Rays. R. F. Mehl, Washington, D. C., G. E. Doan, Bethlehem, Pa., and C. S. Barrett, Washington, D. C.—p. 508.
Roentgen Treatment of Bone Metastasis. C. B. Rose, Chicago.—p. 536.
Malignant Tumor of Ethmoid. J. E. Habbe, Milwaukee.—p. 548.
Head Clamps for a Fenestrated Shield for Roentgenography of Nasal Accessory Sinuses. J. D. Blocher, Rochester, Minn.—p. 554.
Patient with Ewing's Sarcoma. E. E. Larson, Los Angeles.—p. 556.
Fluoroscopic-Radiographic Change Switch. R. B. Taft, Charleston, S. C.—p. 558.

Effect of Roentgen Rays on Healing of Wounds.—Eighty white rats were exposed by Pohle and his associates to two qualities of roentgen rays (100 kilovolts, 2 mm. of aluminum; 140 kilovolts, 0.25 mm. of copper + 1 mm. of aluminum) preceding or following incisions in the skin. In the first group, half of each wound extended into previously irradiated skin; the other half remained in unexposed tissue. In the second group, half of each incision was irradiated following the cutting and the other half was protected. Seven days following the cutting and also after complete healing, the animals were killed and the skin prepared for microscopic examination. Irradiation with a dose of 1,000 r given in one sitting, of either quality of roentgen rays, as defined, from one to thirty days before the incision, did not influence the healing process perceptibly. Irradiation with a dose of 1,000 r in one sitting, with either quality of roentgen rays immediately, twenty-four hours, and forty-eight hours, respectively, after the incisions, retarded the healing process, particularly in the twenty-four hour group, but did not interfere with the final formation of a smooth scar.

Postoperative Behavior of Diaphragm.—Forty-three per cent of ninety-four surgical cases subjected to preoperative and postoperative roentgen examination of the chest by Allen have shown a unilateral high position of one hemidiaphragm. The immediate cause of this observation is undetermined but may be due to paralysis. Fifty-seven per cent exhibited bilateral high position of the domes. The causes are more obvious and apparently do not include paralysis. Both phenomena, but especially the unilateral high diaphragm, deserve attention in the study of the diagnosis and treatment of postoperative chest complications and in the interpretation of postoperative roentgen examinations. Cases exhibiting the two conditions at once cause the heart to assume a horizontal position suggesting displacement to one side or the other, and this, combined with a high position of one dome of the diaphragm, may give an erroneous impression that atelectasis is present.

Surgery, Gynecology and Obstetrics, Chicago

52: 793-416 (April) 1931

*Primary Malignant Tumors of Ureter. M. J. Renner, New York.—. 793.
*Importance of Roentgenographic Examinations in Acute Cases of Circumscribed or Diffuse Peritonitis. A. Westerborn, Upsala, Sweden.—p. 804.
*"Lymphosarcoma" of Neck. J. W. Spies, New Haven, Conn.—p. 815.
Effect of Treatment in Cases of Carcinoma. R. G. Mills, Fond Du Lac, Wis.; A. C. Broders, Rochester, Minn., and H. D. Caylor, Bluffton, Ind.—p. 824.
Squamous Cell Carcinoma of Gallbladder. J. Rabinovitch and R. S. Kieffer, St. Louis.—p. 831.
*Fibrous Peritonitis of Neck of Hernial Sac. V. L. Schrager and J. T. Gault, Chicago.—p. 836.
Experimental Studies of Effect of Amytal on Fetus and Its Transmission Through Placenta of White Rat. C. M. Boucek and A. D. Renton, Pittsburgh.—p. 841.

Operative Treatment of Losses of Substance of Mandible, with Reference to Fixation of Edentulous Fragments. R. H. Ivy and L. Curtis, Philadelphia.—p. 849.
Concept of Thyroidectomy Technic of Today. W. Bartlett and W. Bartlett, Jr., St. Louis.—p. 855.
*Arthrodesis of Hip: Reference to Method of Securing Ankylosis in Massive Destruction of Joint. L. C. Abbott, San Francisco, and F. J. Fischer, Detroit.—p. 863.
Torsion and Volvulus of Stomach. W. A. Morrison, Los Angeles.—p. 871.
Surgical Correction of Cleft Lip and Palate. A. D. Davis, San Francisco.—p. 875.
Radium in Treatment of Cancer of Vagina. I. de Rüben, Budapest, Hungary.—p. 884.
*Infiltration Anesthesia and Its Use in Fractures. C. O. Rice, Minneapolis.—p. 887.
Hernioplasty: Water Injection of Sac to Facilitate Its Removal. S. Robinson, Santa Barbara, Calif.—p. 891.
Skeletal Distraction: Description of Apparatus. D. M. Bosworth, New York.—p. 893.
*Spinal Anesthesia in Abdominal Surgery. L. S. McKittrick, W. L. McClure and R. H. Sweet, Boston.—p. 898.

Primary Malignant Tumors of Ureter.—A carcinosarcoma of the right ureter is described by Renner. The tumor arose from approximately the middle of the posterior wall of the ureter. It filled practically the whole ureter as a sausage-shaped formation, about the thickness of a finger. It penetrated into the urinary bladder and ended in a round swelling about the size of an apple. The tumor of the ureter is considered a real carcinosarcoma, and the local predisposition of the tissue already present in early embryonic stage is assumed to have existed, thus causing the subsequent formation of the growth. Of other malignant growths, about fifty ureteral carcinomas and about ten tumors of the mesenchyme, most of them malignant growths, have up to the present time been described. The clinical diagnosis, tumor of the ureter, could not be made, especially in view of the fact that the hematuria and the roentgenogram of the bladder could both be satisfactorily explained by the removal of a perfectly unencumbered, pedunculated, ball-shaped tumor of the urinary bladder.

Importance of Roentgen Examination in Peritonitis.—In order to investigate the roentgen picture of acute peritonitis, Westerborn had roentgenograms made in a large number of peritoneal cases. Changes quite characteristic of acute peritonitis were found. The author describes the technic used, interprets the roentgenograms, and tells of the most important causes of error in studying the pictures. He reports some cases in which the roentgen examination has given valuable information in the diagnosis of acute diffuse or localized peritonitis. The method has been of especial value in confirming doubtful clinical diagnoses in small children and as a means of discovering postoperative intraperitoneal abscesses. In several cases such abscesses have been precisely located much earlier through roentgen study than would have been possible through clinical examination only.

"Lymphosarcoma" of Neck.—Spies states that in cervical lymphadenomegaly one finds a small number of carcinomas which clinically and histologically closely mimic the lymphoid tumors. As a clinical differential point the amount of external involvement, especially in superficial areas other than the neck, seems of value. A clinicopathologic analysis of thirty-five cases of so-called lymphosarcoma of the neck reveals a group difference in the total duration of disease life, the general condition of the patient, the response of the tumor to irradiation, the amount of external involvement, and perhaps the age of the patient. But in each group the mortality was eventually 100 per cent. Histologically one may prognosticate the total duration of illness from the cell types. Clinically one may evaluate the length of life from the age of the patient, the amount of external involvement, and the general condition of the individual. Histologic and clinical data may be correlated. The rate of the disease progression depends on these factors rather than on the type or amount of irradiation.

Fibrous Peritonitis of Neck of Hernial Sac.—According to Schrager and Gault, fibrous peritonitis at the neck of a hernial sac is a rather common occurrence. The etiology of this circular fibrous ring at the neck of the sac is probably an aseptic, traumatic peritonitis, the result of repeated muscular contractions at the internal ring. Fibrous peritonitis is responsible for a number of strangulations, the degree of damage being proportionate to the toughness of the ring and the narrowness of the lumen at the neck of the sac. Reposition of viscera in severe strangulations frequently requires preliminary division of the fibrous ring, both as an aid in replacement and as a safeguard against mechanical damage to the bowel wall and its mesentery.

Arthrodesis of Hip.—Abbott and Fischer describe a method of arthrodesis of the hip in massive destruction of the joint. This method is based on the apposition of wide areas of cancellous bone under complete fixation and firm pressure. Failure is most often due to neglect of these fundamental principles. The method calls for wide abduction of the limb. No attempt is made to obtain the best functional position of the extremity at the time of arthrodesis. Correction of the abducted position is secured by transverse osteotomy and gradual bending of the callus. This method of osteotomy is simple, minimizes the dangers of displacement of the fragments, and permits frequent inspection and measurements of the extremities to determine the best functional position for weight bearing.

Infiltration Anesthesia and Its Use in Fractures.—Rice emphasizes that there are no untoward effects from the use of local anesthesia in fractures. The simplicity of this method of anesthesia makes it especially desirable. Better alinement of the bones can be accomplished because the fracture can be reduced with the aid of the fluoroscope if necessary and repeated adjustments may be made without further inconvenience to the patient. Relaxation of the muscles is accomplished satisfactorily. It does not interfere with the healing of the fractures.

Spinal Anesthesia in Abdominal Surgery.—McKittrick and collaborators believe that spinal anesthesia does not fulfil all the requirements essential to the ideal anesthetic for abdominal surgery. Nevertheless, it has an important place in surgery below the diaphragm. The indications for and the contraindications to its use are difficult to enumerate. It is safe in experienced hands. It is indicated in operations of an hour to an hour and fifteen minutes duration, in the presence of diabetes, tuberculosis, or when there is definite damage to the kidneys or liver. It is indicated in long operations whenever it is desirable to spare the patient an hour or more of general anesthesia. It is contraindicated in perforations of the intestine because, through its effect on peristalsis, intestinal contents may be emptied into the abdominal cavity. It is also contraindicated in a patient on the verge of collapse, in a patient in whom the nature of the condition contraindicates the Trendelenburg position (general peritonitis), in any patient in whom a sudden fall in blood pressure might be hazardous, and for any operative procedure on a very sick patient which can be successfully carried out under local anesthesia. There is no evidence that hypertension per se is a contraindication to spinal anesthesia. It is nevertheless true that in patients with a systolic blood pressure of 190 mm. or more of mercury a fall of 50 per cent or more of this level frequently occurs and may result in temporary respiratory embarrassment. It is quite probable that spinal anesthesia does little, if anything, to reduce the risk of abdominal operations in the group of patients with hypertension and arteriosclerosis and at times may increase it through a disturbance of their cardiovascular balance. Procaine hydrochloride in 5 per cent dextrose solution, and procaine hydrochloride crystals dissolved in the patient's spinal fluid were the methods used. Reinjection of a solution of procaine crystals in the spinal fluid is believed to be the safest, easiest and most dependable method. The advantages of spinal anesthesia are complete relaxation, quiet respirations, contracted intestine, a probable lack of direct irritation to kidneys, liver and lungs, and the absence of any direct effect on the metabolism of a patient with diabetes mellitus. The disadvantages of spinal anesthesia are the short, uncertain period of anesthesia, the uncertainty of its effect on blood pressure, occasional nausea and vomiting occurring during operation, and the slight handicap of working in the upper part of the abdomen with the patient in the Trendelenburg position. The effect of spinal anesthesia on postoperative complications in a series of 338 unselected cases was a disappointment. During the year in which spinal anesthesia was used there was an apparent increase in the number of postoperative pulmonary complications over that of the preceding year. While spinal anesthesia is not irritating to the lungs and may lessen the incidence of postoperative complications when operation is necessary in young

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patients who already have an acute respiratory infection, there is no evidence at hand to show that spinal anesthesia materially lessens the postoperative complications of the respiratory system in elderly and debilitated patients. An increase in the incidence of atelectasis, which in turn may lead to more serious conditions, is suggested as a possible explanation for this.

United States Naval Med. Bulletin, Washington, D. C.

29: 191-356 (April) 1931

Psychologic Study Made on Candidates for Aviation Training. C. G. De Foney.—p. 191.
Report on International Hygiene Exposition, Dresden, 1930. C. S. Butler.—p. 204.
Simulated Deafness. H. C. Weber.—p. 209.
Simulation. T. A. Williams.—p. 221.
Classification of Bacteria. J. M. McCants.—p. 224.
Naval Ammunition Depot, Hawthorne, Nev. D. B. Peters.—p. 229.
*Dermatitis Exfoliativa Following Neosalvarsan. A. C. Surber, Jr.—p. 233.
Granuloma Inguinale: Case. G. C. Thomas and J. W. Kimbrough.—p. 237.
Hypernephroma. M. J. Aston.—p. 241.
*Hyperplastic Tuberculosis of Cecum Simulating Appendiceal Abscess. J. J. A. McMullin.—p. 244.
*Local Anesthesia in Appendectomy. C. F. Storey.—p. 246.
Vitiligo: Case Report. H. L. Wyatt.—p. 250.
*Simple Method of Gastric Analysis. W. H. Funk.—p. 251.

Dermatitis Exfoliativa Following Neoarsphenamine.—According to Surber, dermatitis exfoliativa is one of the important manifestations of arsenical poisoning. The dosage of sodium thiosulphate should be correlated with the patient's ability to excrete the free arsenic. Sodium thiosulphate is apparently of value in Kahn-fast cases. A case of severe dermatitis exfoliativa appearing eighteen days following the seventh dose of neoarsphenamine is presented, showing an exacerbation of symptoms during thiosulphate treatment, and a late transient jaundice, with complete recovery. The proper use of ephedrine, calcium and mercury preparations, small initial and moderate maximum dosage of arsenicals, balance of intake and elimination, and the early recognition of a latent jaundice will tend to prevent reactions.

Hyperplastic Tuberculosis of Cecum.—McMullin believes that the history of pulmonary tuberculosis, recurrent attacks of diarrhea, colicky pain, and tenderness with the presence of a tumor-like mass in the right iliac fossa should guide one in establishing a diagnosis. Tuberculosis of the cecum may have acute exacerbations, which resemble an appendical abscess, presenting a tender, painful mass, rigidity, fever and leukocytosis. Resection of the involved bowel and lymph nodes is a satisfactory form of treatment in selected cases of proliferative tuberculosis of the cecum.

Local Anesthesia in Appendectomy.—The advantages of local anesthesia over general in appendectomies are summoned up by Storey as follows: Local anesthesia gives a quieter field during the operative and postoperative periods, thereby helping to prevent the dissemination of infective materials. It gives a negative intra-abdominal pressure rather than the positive pressure found when general anesthesia is used. It can be used without danger in such conditions as respiratory tract infections, nephritis, cardiovascular disease, diabetes mellitus, and pronounced secondary anemias, in which inhalation anesthetics are contraindicated. It lessens the possibility of postoperative pneumonia. "Gas pains," so common after general anesthesics, in addition to nausea and vomiting, are almost unknown when local anesthesia is used. It eliminates what is for many patients the most dreaded and most trying part of a surgical procedure, the taking of a general anesthetic. It is comparatively inexpensive, does not require a trained assistant to administer, and can be given in two or three minutes at any time or any place. Procaine hydrochloride will keep indefinitely. The surgeon has the additional advantage of being able to converse with the patient as to his symptoms during the operation. Nourishment in the form of fluids can be given immediately after the operation without untoward symptoms. The dangers of an anesthetic death are practically eliminated.

Simple Method of Gastric Analysis.—The tube used by Funk is simply a long rubber catheter, size 14, 15 or 16 French, length about 125 cm. (50 inches). There is no metal tip. The tube is passed through the nostril as for nasal feeding. After the contents of the fasting stomach have been obtained by aspiration, a test meal of 100 cc. of 10 per cent alcohol solution is introduced through the tube. Specimens for gastric analysis are taken at thirty minutes and one hour after the introduction of the test meal. With this method there is little discomfort to the patient. Retching, gagging, and so on, are not experienced with such frequency as occur with the passage of the ordinary tube or Rehfuss tube through the mouth. Contents obtained for laboratory chemical analysis are clear and do not require filtering. Titration for free and total acidity can be done immediately. The values obtained for free and total acidity seem to parallel or run slightly higher than those obtained by the Ewald test meal with the Rehfuss tube. Tests run by each of these methods on the same patient on successive days have given practically identical values.

United States Vet. Bur. M. Bull., Washington, D. C.

7: 297-433 (April) 1931

Chronic Arthritis. M. H. Axline.—p. 297.
*Bladder Diverticula and Their Surgical Removal. J. S. Eisenstaedt and T. C. McDougall.—p. 313.
Study of Bone Tumors in Ex-Service Men. P. B. Matz.—p. 321.
Multiple Foci in Tuberculosis. A. Josewich.—p. 337.
Study of Intestinal Tuberculosis. W. C. Davis.—p. 344.
Hospitalized Neuropsychiatric Ex-Service Man. G. A. Rowland.—p. 353.
Social Status of Mentally Sick. F. E. Leslie.—p. 358.
Reactions in Pulmonary Tuberculosis. R. D. Tompkins.—p. 362.
Exercise in Pulmonary Tuberculosis. J. H. McClellan.—p. 371.
*Stricture of Rectum. W. F. Penn.—p. 373.
Epidemic Encephalitis. S. G. Fisher.—p. 379.
Sedative Hydrotherapy for Psychotic Patients. C. R. Miller.—p. 383.
Intellectual Deterioration in Manic-Depressive Psychosis. G. Van N. Dearborn.—p. 388.
*Use of Sodium Iso-Amyl-Ethyl Barbiturate (Sodium Amytal) in Various Mental Diseases. J. Epstein and J. L. Young.—p. 393.
Contact Problems in United States Veterans' Hospitals. H. L. Strickney.—p. 398.
Plea for Conservatism in Dental Treatment. C. F. Wheeler.—p. 401.
Tumor of Lung Suggestive of Gumma. E. Levy.—p. 403.
Transposition of Thoracic and Abdominal Viscera. H. Grieger.—p. 405.
Pulmonary Tuberculosis Complicated by Jamaica Ginger Paralysis and Syphilis. V. H. Bean.—p. 408.

Bladder Diverticula and Their Surgical Removal.—According to Eisenstaedt and McDougall, increased intracystic pressure, due to obstruction or infection or both, plays an important part in causing herniation of the bladder through a congenitally weak area. Congenital diverticula show no characteristic microscopic changes to differentiate them from the acquired type. There are no diagnostic subjective symptoms of bladder diverticulum. Dysuria over a long period of years, and the necessity of emptying the bladder twice in a short time, may be considered suggestive symptoms. Cystoscopy and cystography are the two important methods of diagnosis. Complete surgical removal is indicated in all cases in which the general condition warrants operative intervention. Preliminary drainage accomplishes little in preparing a patient for radical resection. A technic is described which, with necessary modifications, has proved satisfactory in the authors' hands.

Stricture of Rectum.—Penn states that syphilis and tuberculosis play an important part in the development of simple strictures. Any form of mixed infection producing a rectitis may be followed by stricture. Stricture of the rectum is more prevalent among females than among males, owing to the trauma to which women are subjected at childbirth. Negroes are more prone to this condition than white persons, on account of their fibroblastic tendencies. Treatment by dilation is indicated in simple stricture. Posterior proctotomy is indicated in severe strictures.

Use of Sodium Amytal in Various Mental Diseases.—Epstein and Young believe that sodium amytal given by mouth appears to have definite possibilities as an addition to the armamentarium of drugs now available for the symptomatic relief of various excited and restless states associated with mental diseases. It also seems to be of definite benefit in the excited and restless states associated with postepileptic confusion. On the other hand, it seems to have no effect in warding off epileptic seizures. Taking the drug as a whole, they feel that the hypnotic and sedative effect, which appears quite rapidly and disappears without any untoward results, makes it a valuable adjunct in the symptomatic treatment of the excited

and restless states of psychoses. Sixty-nine per cent of their series of sixteen patients were given relatively prompt and complete alleviation of their symptoms during the period of action of the drug. One important advantage of sodium amytal is that its action is quite rapid, i. e., from twenty minutes to one hour, and its sedative effect remains for several hours. Another advantage this drug possesses is the absence of after-effects; it seems that, on awakening, the patient shows no drowsiness or other associated symptoms. This, although advantageous in the sleepless state of psychoneurosis, may work to disadvantage in other types of excitement in which the patient, after awakening, tends to resume the same behavior as that prior to the administration of the drug. In many instances this, however, was not true, for the patient continued to remain quiet for hours following.

Virginia Medical Monthly, Richmond

58: 1-70 (April) 1931

Management of Psychoneuroses. R. F. Gayle, Jr., Richmond.—p. 1.
Analysis of Two Hundred and Seven Consecutive Operations on Patients Suffering with Thyroid Disease. J. M. Emmett, Clifton Forge.—p. 5.
Tularemia in Differential Diagnosis: Thirteen Cases. S. D. Blackford, University.—p. 10.
Avertin in General Surgery. I. H. Goldman, Richmond.—p. 13.
Tribomethyl Alcohol (Avertin), Rectal Method of General Anesthesia. W. K. Dix and J. S. Horsley, Jr., Richmond.—p. 16.
Material Medicine. W. O. Bailey, Leesburg.—p. 21.
Multiple Primary Carcinoma: Four Cases. C. Williams, Richmond.—p. 24.
Whither Are We Drifting as a Profession? Facts Worthy of Our Consideration as Loyal Physicians. B. C. Keister, Washington, D. C. —p. 29.
Tuberculosis of Hip. D. M. Faulkner, Richmond.—p. 33.
Treatment of Convulsive Toxemia of Pregnancy. T. L. Lee, Kinston, N. C.—p. 37.
Thyroid Extract in Treatment of Certain Cardiac Disorders. D. G. Chapman, Richmond.—p. 41.
Challenge of Heart Disease. L. T. Gager, Washington, D. C.—p. 45.
Sterilization: Review. C. W. Putney, Staunton.—p. 47.
Foreign Bodies in Urinary Bladder. H. N. Dorman, Washington, D. C. —p. 49.
Treatment of Hay-Fever. W. E. Jennings, Danville.—p. 52.

Western J. of Surg., Obst. & Gynec., Portland, Ore.

39: 161-248 (March) 1931

Occlusive Disease of Arteries of Lower Extremities. W. K. Livingston, Portland.—p. 173.
*Temperature Rise in Lower Extremities Following Spinal Anesthesia. S. Brill, L. B. Lawrence and H. C. Naffziger, San Francisco.—p. 180.
*Sympathetic Ganglionectomy in Thrombo-Angiitis Obliterans. P. G. Flothow, Seattle.—p. 192.
Posterior Fossa: Affections of Structures Contained Therein, and Relation to Ear, Nose and Throat. G. W. Swift, Seattle.—p. 204.
Cysts of Liver Other Than Hydatid Cysts or Those Resulting from Polycystic Disease. C. G. Toland, Los Angeles.—p. 209.
Clinical and Pathologic Study of Carcinomatous Gastric Ulcer: Grading of Malignancy. W. H. Buermann, Portland.—p. 217.
Pathology of Thyroid Gland of Human Fetus and the New-Born. R. P. Ball, Harlan, Ky., and A. C. Abbott, Winnipeg, Manit.—p. 220.

39: 249-328 (April) 1931

Relationship of Weak Feet to Back Pain. R. F. Berg, Portland.—p. 261.
Diagnosis and Treatment of Chest Injuries. F. S. Dolley, Los Angeles, Calif.—p. 267
Remarks on Facial Nerve. E. F. Chase, Seattle, Wash.—p. 272.
Supernumerary Ectopic Ureter: Source of Unexplained Pyuria. T. E. Gibson, San Francisco.—p. 280.
Whole Blood Transfusions: Indications, Efficacy and Results. M. T. Nelson, Tacoma, Wash.—p. 284.
Prolapse of Rectum: Conditions and Procedures: New Plan of Surgical Management. B. Brooke, Portland.—p. 288.
Carcinoma of Large Bowel Including the Rectosigmoid Junction. J. T. Mason, Seattle.—p. 294.
Clinical and Pathologic Study of Carcinomatous Gastric Ulcer: Reference to Grading of Malignancy. W. H. Buermann, Portland, Ore.—p. 301.

Temperature Rise in Lower Extremities Following Spinal Anesthesia.—Brill and his associates state that the temperature reactions of the lower extremities following the induction of spinal anesthesia indicate that: (1) the rise in both the surface and the tissue temperatures of the feet of normal persons is about 11 degrees centigrade; (2) this normal reaction may be modified by incomplete anesthesia or by a marked fall in blood pressure. Observations on a patient with a subarachnoid block at the first lumbar segment indicate that at least an important part of the sympathetic innervation of the blood vessels of the lower extremities arises above that level. In cases of vasospastic disorders with no organic changes in the vessel walls, the temperature rise of the feet is normal or greater than normal. In the vasospastic cases, which also have organic vascular changes, the temperature rise is less than normal. In patients with thrombo-angiitis obliterans the extent of involvement of the vascular tree may be judged from the temperature reaction of the involved extremities to spinal anesthesia. In arteriosclerotic disease, this reaction is of definite aid in prognosis. In patients with neurovascular disease of the lower extremities, the temperature reaction following the induction of spinal anesthesia permits a more accurate judgment as to how much the patient may be benefited by lumbar sympathectomy.

Sympathetic Ganglionectomy.—Seven cases of thrombo-angiitis obliterans, in which sympathetic ganglionectomy was performed, are reported by Flothow. In all of these there was immediate and lasting relief of pain. In all there has been improvement in the gangrenous condition. In all except the last two, in which insufficient time has elapsed, the gangrene and various trophic disturbances have entirely healed. There has been one death in which the abdominal approach was used to remove the sympathetics. Since adoption of the lumbar approach devised by Royle, there have been no deaths. By means of diagnostic procaine hydrochloride injection of the sympathetic trunks, one can now determine accurately in advance whether or not operation is indicated. Out of fifteen or twenty cases of thrombo-angiitis obliterans which the author has observed, seven have been considered suitable for sympathetic ganglionectomy. In all of these there has been immediate and lasting relief of pain and immediate improvement in the trophic conditions that were present. Although the first patient was operated on less than two years ago, and the last approximately two months ago, none of them have shown evidence of recurrence.

West Virginia Medical Journal, Charleston

27: 145-192 (April) 1931

Our Changing Conception of Inflammatory Disease of Gallbladder. E. P. Lehman, University, Va.—p. 145.
Placenta Praevia. W. E. Hoffman, Charleston.—p. 153.
Hospital Association. B. I. Golden, Elkins—p. 155.
Nasal Polyp. G. A. Smith, Montgomery.—p. 159.
Bronchosinusitis. S. S. Hall and H. V. Thomas, Fairmont.—p. 162.
The Nervous Patient. W. V. Wilkerson, Montgomery.—p. 166

Yale J. of Biology & Medicine, New Haven, Conn.

3: 299-384 (March) 1931

Rise of the Experimental Method: Bacon and the Royal Society of London. J. F. Fulton, New Haven.—p. 299.
Microbic Dissociation of Hemophilus Influenzae. S. G. Holster, New Haven.—p. 321.
*Changes Produced in Distribution of Blood Supply of Skin and Upper Respiratory Tract by Application of Localized Drafts of Air. L. Greenburg, New Haven.—p. 341.
Two Case Reports of Anencephaly Diagnosed Before Birth. F. E. Tracy, New Haven.—p. 355.
Blood Picture of Normal Laboratory Animals. R. A. Scarborough.—p. 359.

Changes Produced by Drafts of Air.—Greenburg performed twenty-six experiments on seven subjects with drafts of air being played directly on the feet or head, while the remainder of the body was shielded from the draft by means of a suitable screen. From these experiments it is concluded that the skin temperature of a human being under any set of conditions is characteristic of that person and varies with the effective temperatures at which the body is exposed. At high effective temperatures the skin of the body tends to possess a uniform temperature, while at lower effective temperatures the temperature of the skin of the extremities falls below that of the remainder of the body. The exposure of an extremity of the body, either the head or the feet, served to produce a lowering of the temperature of that extremity. The exposure of the feet to a draft produced a fall of temperature of the head in approximately 65 per cent of the experiments, while the exposure of the head to a draft caused a fall in the temperature of the skin of the feet in 85 per cent of the experiments. The exposure of the feet to a draft appears, after cessation of the draft, to be characterized by a slow rise of temperature of the head and of the feet, whereas the exposure of the head to draft is characterized by a slow rise of temperature of the feet and a rapid rise of temperature of the head. The temperature of the nasal mucosa was found to be decreased in 75 to 80 per cent of the

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experiments on the exposure of the subject to a draft, whereas the temperature of the palatine tonsils was found to decrease in 60 per cent of the experiments. Glatzel mirror studies indicate that the breathing space of the nose was increased in from 50 to 64 per cent of the experiments. The temperature studies of the nose and throat, as well as observations on the size of the nasal breathing space, the Glatzel mirror records, and the color of the mucous membranes all agree in indicating the production of a shrunken, pale mucosa of a lower temperature than that existing before the application of the localized draft.

FOREIGN

An asterisk (*) before a title indicates that the article is abstracted below. Single case reports and trials of new drugs are usually omitted.

Edinburgh Medical Journal

38: 237-288 (April) 1931

*Bacterial or Infective Endocarditis. W. S. Thayer.—p. 237.
*Acholuric Jaundice Complicated by Bacillus Coli Septicemia. R. M. M. Lyon.—p. 266.

Bacterial or Infective Endocarditis.—According to Thayer, streptococcal endocarditis is by far the commonest of the bacterial endocarditides. The clinical and pathologic manifestations vary according to the character of the infecting organism. Infections due to *Streptococcus haemolyticus* usually run a rapid course with high, continued fever and the phenomena of a malignant septicemia. Endocardial lesions are often small, fibrinous villosities along the lines of closure or at the free border of the mitral or aortic valves. They are generally unrecognized during life. Occasionally, however, this streptococcus seems to give rise to a more subacute process resembling that occurring in infections with the more attenuated streptococci. The milder forms of streptococcus (nonhemolytic), the group spoken of as *Streptococcus viridans*, including *Streptococcus mitior* and, notably, *Streptococcus salivarius* and *Streptococcus faecalis*, give rise to the characteristic picture of subacute vegetative endocarditis (endocarditis lenta).

Acholuric Jaundice.—Lyon reports a case of acholuric jaundice complicated by *Bacillus coli* septicemia in which there occurred a dissociation of the Arneth count with a shift to the right and to the left during the septicemia. The shift to the left is expected with microbic infection. A similar dissociation may be found in cases of pernicious anemia, complicated by sepsis, there being a shift to the left superadded to the preexisting shift to the right. This dissociation in pernicious anemia may also be found without any sign of sepsis. In the author's case, however, there was no shift to the right after the septicemia cleared up. The acholuric jaundice, therefore, would not appear to be responsible for the change. This dissociation was found before blood transfusion had complicated the picture; otherwise it might have affected the length of life of the polymorphonuclear leukocytes. One must therefore conclude that the dissociation of the Arneth count was due to the *B. coli* septicemia.

Indian Medical Gazette, Calcutta

66: 121-178 (March) 1931

Epidemic Dropsy in Family at Sandwip Island. S. L. Sarkar.—p. 121.
Heart Affections in Bengali Babies. J. Das Gupta.—p. 124.
Four Cases of Plague. G. W. Vincent.—p. 126.
Existence of Hilus Tuberculosis in Indians. R. N. Tandon.—p. 127.
Unsuspected Sources of Leprous Infection. S. N. Chatterji.—p. 129.
Some Observations on Human Amebiasis: Analysis of Postmortem Findings in 426 Cases. P. V. Gharpuré and J. L. Saldanha.—p. 132.
Results of Prophylactic Cholera Inoculation in Faridpur District. R. B. V. G. Raju and A. K. Sarkar.—p. 135.
Analysis of More Commonly Used Ointments of "British Pharmacopeia" Containing an Inorganic Principle as the Active Constituent. E. H. Bunce.—p. 137.

Lancet, London

1: 683-736 (March 28) 1931

Lessons of Distribution of Infectious Diseases in Royal Navy. S. F. Dudley.—p. 683.
Comparative Aspect of Growth in Children. H. A. Harris.—p. 691.
*Septicemia Treated with Scarlet Fever Antitoxin. Violet H. Comber.—p. 698.

Septicemia Treated with Scarlet Fever Antitoxin.—In each of seven cases of septicemia reported by Comber, blood cultures were examined. Six of these showed streptococci in the blood. In four of these no mention was made as to whether the streptococcus was hemolytic; one was proved to be hemolytic (this patient also having hemolytic streptococci in the cerebrospinal fluid) and one was stated to be nonhemolytic. The seventh case gave a growth of *Staphylococcus albus* only on two occasions and, although all precautions were taken to avoid it, this was probably a skin contamination. In all of the cases but one, which was mild in type compared with the others, scarlet fever antitoxin was used, with good results in five out of the six. Even in the case that ended fatally there appeared to be some response to serum, but this case was complicated by a streptococcal meningitis. Two of the patients developed abscesses of the thigh at the site of injection of serum, and from both of these streptococci were recovered. These were in all probability in the nature of fixation abscesses. Two other patients developed redness and localized swellings, one over the outer end of the clavicle and the other over the coccyx and great trochanter, which looked as though they would suppurate, but in both cases the swellings subsided without surgical intervention. These cases are presented as additions to the material already available on this subject. From the clinical standpoint it appears to be clear that, in any case in which there is reason to believe that the septicemic condition may be streptococcal, the repeated administration of scarlet fever antitoxin is well worth consideration. It may be that the action is entirely specific, but it is more than probable that nonspecific protein therapy also plays its part.

Medical Journal of Australia, Sydney

1: 275-302 (March 7) 1931

*Cancer and Tuberculosis: VI. Relation of White Blood Corpuscles to Development of Malignant Disease. T. Cherry.—p. 275.
*Laboratory Investigation for Detection of Typhoid Carriers. R. Y. Mathew.—p. 286.
Unusual Manifestations of Hydatid Disease. A. E. Lee.—p. 288.
Intussusception. C. Uren.—p. 289.

Cancer and Tuberculosis.—Cherry describes two conditions affecting the same part of the body in 100 mice. One half of the animals had a polymorphonuclear and the other half a lymphocytic infiltration of the pancreas. The former was associated with atrophy of the lobules and disappearance of the epithelial cells; the latter with a tendency to proliferation leading in six instances to carcinoma of the pancreas. He concludes that (1) the lymphocytes take an active share in the production of malignant disease and are an essential link between the normal and the malignant cell; (2) prolonged suppuration in man affords protection against malignant changes (local as in chronic ulcers, general as in chronic phthisis) by its action in reducing the number of lymphocytes in the blood.

Detection of Typhoid Carriers.—Mathew states that, during four months, 7 cases of typhoid occurred among 464 patients (male and female) occupying five wards in a psychopathic hospital of 1,100 patients distributed in twelve wards. An investigation was made of the occupants of the wards concerned and of the kitchen hands and milkers for the detection of possible carriers. One carrier was found. At subsequent operation, inflammatory changes in the gallbladder were revealed; from the bile a pure culture of *Bacillus typhosus* was secured.

1: 303-334 (March 14) 1931

Some Aspects of Radiation Treatment. B. L. W. Clarke.—p. 303.
Notes on Development of Army Medical Services. F. K. Norris.—p. 308.
*Punctate Basophilia: Method for Easy Demonstration by Dark Ground Illumination. W. T. Nelson.—p. 310.
Modern Therapeutics. G. C. Willcocks.—p. 314.

Punctate Basophilia.—Nelson describes the use of dark field illumination in the microscopic examination of blood films for evidence of punctate basophilia. The dark field method is far less fatiguing and time-consuming than bright field methods in counting stippled cells in blood films. Attention is drawn to the importance of examining films in a fresh condition. Punctate basophilia, as demonstrated by this method, was found of frequent occurrence in workers not apparently subjected to any single common cause of this condition. Punctate basophilia was present in a large number of those workers and in a significant proportion of red blood corpuscles. A number of workers with trinitrotoluene were examined, and similar

changes demonstrated. The high stippled cell counts found in cases of disease hitherto unsuspected of being accompanied by punctate basophilia indicate the need for further investigation in this direction. In view of the unexpected high percentage of persons in whose blood evidence of stippling may be found by the dark field method, it would appear that in any individual case the significance of this change as evidence of trinitrotoluene or lead absorption is questionable.

South Africa Medical Assn. Journal, Cape Town

5: 137-168 (March 14) 1931

Case of Biliary Cirrhosis of Liver. P. Bayer.—p. 139.
Sporotrichosis in White Man. M. Goldberg and A. Pijper.—p. 140.
"Medical Unit" in Rural Area. D. Hynd.—p. 141.
Ambulatory Treatment in Surgery. G. Sacks.—p. 142.
Extraction of Teeth by Medical Practitioners. E. Calder.—p. 143.
Routine Treatment and Prophylaxis of Malarial Fever. G. A. P. Ross. —p. 146.

China Medical Journal, Shanghai

45: 191-296 (March) 1931

Tuberculosis in Obstetrics and Gynecology. J. P. Maxwell.—p. 191.
Case of Acute Appendicitis Complicating Labor. G. King.—p. 207.
High Spinal Analgesia. H. E. Campbell.—p. 212.
Nephritis Among Chinese. W. W. Cadbury.—p. 218.
Suprarenal Disease in Korean Male Causing Pseudohermaphrodism, Hypertension and Hypertrichosis. S. H. Martin.—p. 244.
Influence of Fatigue on Growth of Rat Tumors. I. Yun.—p. 247.
Birth of MacDuff. P. V. Early.—p. 253.

Archives de Médecine des Enfants, Paris

34: 141-204 (March) 1931

Health Camps for Children. Cheyrou-Lagrèze.—p. 141.
Statural Growth of Tall Girls. P. Nobécourt.—p. 149.
Blood Pressure in Normal Child. L. Garot.—p. 164.
*Case of Fatal Tuberculosis in Child Vaccinated Subcutaneously with B C G. E. Jaso.—p. 169.
Some Dental Anomalies. J. Comby.—p. 175.

Fatal Tuberculosis in Child Vaccinated with B C G.—Jaso reports the case of an infant admitted to the hospital at the age of 13 months, hypothreptic, hypotrophic, rachitic and with pyodermitis. Mendel's test gave a negative reaction at three different times, forty, seventy-five and ninety days after her arrival. Immediately after the third negative tuberculin reaction she was vaccinated subcutaneously with 0.0125 mg. of B C G. There were no immediate abnormal reactions either local or general. Four months later the child presented a syndrome of progressive cachexia with superior left lobar infiltration and cavitary indications. Before a therapeutic pneumothorax could be established, the condition became generalized and evolved rapidly toward death. It is altogether improbable that the generalization and fatal evolution were the result of the B C G vaccination, especially in the face of the absence of immediate local reactions and of enlargement of the regional lymph nodes. Nor is it reasonable to suppose that a child who had lived for three months in the same environment would yield more readily to a chance infection after vaccination than before. The author feels, therefore, that the infection must have been present before the vaccination, in spite of the negativity of the tuberculin reactions, and that the benignity of the condition (only an extremely mild infection is not revealed by Mendel's test) was changed to a generalized and fatal form of tuberculosis by the B C G vaccination. To avoid such unfortunate accidents it is advisable to take all possible precautions to detect a possible infection before vaccination with B C G.

Bull. et Mém. de la Soc. Méd. des Hôpitaux de Paris

47: 323-369 (March 9) 1931

*Action of Anesthesia and of Fever on Paroxysmal Syndromes. D. Danielopolu.—p. 324.
Case of Varicella Complicated by Encephalitis. P. Gautier and V. Monedjikova.—p. 332.
*Importance of Chronic Hydrargyrism in Employees in Shooting Galleries. R. Garcin, J. Christophe, A. Bocage and L. Hélion.—p. 335.
Pick-Herxheimer's Erythromelia and Bilateral Facial Paraspasm. F. Rathery and J. Sigwald.—p. 341.
Amelioration of Case of Erythromelia by Transcerebral Dielectrolysis of Magnesium. G. Bourguignon and S. Eliopoulos.—p. 351.
Chronic Infection of Finger Followed by Reticulo-Endothelioma and Generalized Vitiligo. F. Coste, A. Herrenschmidt and P. Foulon.—p. 360.

Action of Anesthesia and of Fever on Paroxysmal Syndromes.—Danielopolu calls attention to the effect of anesthesia on paroxysmal attacks in the course of various pathologic conditions. He attributes the disappearance of the paroxysmal symptoms to a diminution of the tonus of the sympathetic nervous system under the influence of the anesthetic. He also shows that the disappearance of paroxysms when fever develops is due to a similar sympathetic hypotonicity, which habitually accompanies febrile conditions.

Importance of Chronic Hydrargyrism in Employees in Shooting Galleries.—Garcin and collaborators report three cases of mercurial intoxication in persons employed in shooting galleries. They emphasize the grave dangers of hydrargyrism in such establishments, especially those in which the patrons shoot through tubes. The employees behind the stand constantly breathe the poisonous fumes from the mercury fulminate contained in the cartridges. Although the intoxication is partly of digestive origin since the hands of the workers are constantly soiled with dust and the products of deflagration, it is chiefly through the respiratory passages that the poisons are absorbed. The first symptoms are usually rhinitis, conjunctivitis, gingivitis and colitis, which usually lead to mercurial tremor later on. It is most important, therefore, to provide for more effective ventilation of shooting galleries, to encourage hygienic precautions among the workers and to detect the first symptoms of intoxication so that the patients may receive treatment before the condition becomes serious.

Presse Médicale, Paris

39: 369-392 (March 14) 1931

*Distribution of Experimental Cerebral Embolisms. M. Villaret, L. Justin-Besançon and S. de Sèze.—p. 369.
Pathology and Pathogenesis of Hypogastric Plexalgias. G. Cotte and J. Dechaume.—p. 373.
*Roentgen Diagnosis of Chronic Appendicitis. P. Jacquet and L. Gally. —p. 376.
Acromegaly with Adiposogenital Syndrome and Glycosuria of Syphilitic Origin. J. Payenneville and F. Cailliau.—p. 380.
Severe Stenoses of Esophagus in Infants. J. Guisez.—p. 384.
Defense of Organism in Infections from Pyogenic Bacteria. J. Séjourné. —p. 387.

Distribution of Experimental Cerebral Embolisms.—Villaret and collaborators present a technical study of the production of experimental cerebral embolisms. After numerous experiments on dogs they have concluded that in cerebral embolisms produced by injecting an embolism-forming substance through a cannula that interrupts the arterial current the injection must be directly into the internal carotid if one wishes to achieve results that may be used for comparative purposes. One may, however, create an embolism without interrupting the arterial flow by a lateral injection into the superior thyroid artery, after ligature of the external carotid. This technic makes it possible to realize an arterial obliteration limited to the corresponding cerebral hemisphere.

Roentgen Diagnosis of Chronic Appendicitis.—Jacquet and Gally emphasize the importance of roentgen examination in the diagnosis of chronic appendicitis. In many cases, when the diagnosis is based solely on the determination of a painful McBurney's point, even though it seems of incontestable specificity of localization, surgical intervention reveals the complete absence of appendicitis. A supplementary roentgen examination is therefore of the utmost value. Exactly six hours before the examination, the patient is given a barium sulphate preparation thinned with about 250 Gm. of gruel or coffee. If medical treatments have been employed, they should be suspended several hours before the administration of the barium sulphate. In a normal person, six hours after the repast the barium sulphate is entirely in the ascending colon, filling it up to the hepatic angle, and only a small residue remains in the ileum. On the other hand, in case of appendicitis the ileum contains a large mass of barium sulphate, at least equal to the quantity that has passed into the ascending colon. There is not an ileac stasis, however, such as is observed in true conditions of occlusion, but merely a simple delay in the ileocecal transit. This delay is one of the principal symptoms of appendicitis. Spasms characteristic of appendicitis are often observed also in the ileocecal region of the intestine. Sometimes a total spasm of the cecum

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and ascending colon is present; sometimes there are localized spasms. At the exact location of the painful point there exists a deep groove in the external surface of the cecum, analogous to the one that corresponds to the painful gastric point in cases of ulcer. All of these deformations are rapid, transitory and localized; they are intensified by compression and are definitely revealed on the screen, so that they may be carefully studied. The authors have used this method of diagnosis in numerous cases and their results have in every case been verified by the operation.

Revue Médicale de la Suisse Romande, Lausanne

51: 129-192 (March 10) 1931

*Exploratory Curettage. M. Muret.—p. 129.
Cutaneous Pigmentation and Depigmentation. F. M. Messerli.—p. 137.
Psyche and Eczema. J. Bonjour.—p. 148.

Exploratory Curettage.—Muret strongly advocates the use of exploratory curettage as a method of diagnosis, especially for the early recognition of cancer of the body of the uterus. In reply to a recent criticism of the method he states that he has never seen symptoms of pelvic infection resulting from a curettage for postclimacteric hemorrhage and that he has never observed dissemination of the neoplasm after the operation. Although the curet does not always reach the neoplasm, the author feels that such cases are too rare to be presented as evidence against the method, especially if the curettage is well done. It is true that in some cases the symptoms are so specific that it is safe to perform even a serious operation without hesitancy. In the majority of cases, however, a careful exploration followed by an equally meticulous examination of the material removed is a valuable diagnostic method and often enables the physician to avoid a dangerous operation. The author points out that the simplicity and harmlessness of the method make it especially valuable to the general practitioner when the services of an expert gynecologist are not available.

Schweizerische medizinische Wochenschrift, Basel

61: 241-264 (March 14) 1931

Status of Camphor Therapy. M. Cloëtta.—p. 241.
*Tubercles in Intima of Aorta Descendens. W. Iff.—p. 244.
Treatment of Luxations of Shoulder and Hip. E. Ceppi.—p. 246.
School Physician and Tuberculosis Law. P. Lauener.—p. 247.
Development of Ophthalmology in Eighteenth and Nineteenth Century with Consideration of Switzerland. A. Bader.—p. 250.

Tubercles in Intima of Aorta Descendens.—A review of the literature on tubercles in the intima of arteries convinced Iff that in nearly all cases there exists simultaneously a generalized acute miliary tuberculosis or a miliary tuberculosis of the skin. The description of the microscopic structure of the tubercles of the aorta is also nearly the same in all reports. The bacillary content of the tubercle varies, but on the periphery it is usually considerable and occasionally also in the center. The descriptions of the microscopic structure of the tubercle vary in regard to the extention of the fibrinous and thrombotic stratifications and also in regard to the depth of the foci, in that some tubercles are only in the intima while in other cases the media and adventitia are involved. In the second part of the article the author describes the results of a necropsy on a cachectic woman, aged 70, who had died as the result of the following conditions: a recurrent endocarditis of the mitral and aortic valves, obliteration of the pericardium, a nodose, cavernous, pulmonary tuberculosis and a lobar pneumonia of both lower lobes. In the thoracic portion of the aorta descendens three miliary, caseated tubercles were found, which contained an abundance of tubercle bacilli. Since the adventitia, media and also the deeper layers of the intima were free from tuberculous changes, the infection could have been caused only by way of the blood stream. It is surprising that, in spite of the ulcerated surface of the tubercles and the abundance of tubercle bacilli, a miliary tuberculosis did not develop. But the author thinks that since not all organs were subjected to a microscopic examination it is possible that the microscopic beginnings of a miliary tuberculosis may have been overlooked or that a macroscopically recognizable miliary tuberculosis did not develop because the patient died as the result of the lobar pneumonia and of the general marasmus, before this could take place.

Annali Italiani di Chirurgia, Naples

10: 129-258 (Feb. 28) 1931

Klippel-Feil Syndrome. L. Biancalana.—p. 129.
Experimental Disinsertion of Pancreas from Duodenum. G. Perrotti.—p. 145.
*Anatomic and Bacteriologic Changes in Bile Ducts Following Experimental Cholecysto-Entero-Anastomosis. D. Vallone.—p. 158.
*Mechanism of Production of Postoperative Hyperglycemia. A. Rindone.—p. 190.
Hydronephrosis and Renal Tuberculosis from Ureteral Stenosis Due to Adnexitis and Lateroversion of Uterus. M. Cilento.—p. 204.
Tuberculosis Associated with Cancer of Breast. G. Lucchese.—p. 217.

Changes in Bile Ducts Following Cholecysto-Entero-Anastomosis.—Vallone concludes from his experiments on dogs that experimental cholecystogastrostomy and cholecystoenterostomy lead to the infection of the bile ducts. Cholecystoenterostomy is incompatible with life. The degree of infection that is produced in the bile ducts is in direct relation to the size of the connective opening. There is a proportional difference with respect to biliary infection between high and low openings. The dilatation of the bile ducts noted after cholecysto-enteroanastomosis cannot be considered of a mechanical nature; it is moreover in direct relation to the infection. In animals of normal health, of the micro-organisms that more frequently are found in biliary infections following enterobiliary anastomoses may be mentioned *Bacillus coli* and the staphylococcus.

Mechanism of Postoperative Hyperglycemia.—Rindone concludes that after interventions of a slight nature carried out in lumbar anesthesia there occurs usually a slight, transitory hyperglycemia that may, however, persist for more than sixty-five hours. Such hyperglycemia is influenced by treatment with ergotamine, the values of the glycemic index being reduced or even inverted, so as to give a frank hypoglycemia. Considering the mechanism of the action of ergotamine, the author holds that the stimulation of the neurohormonic sympathico-epinephric complex can be regarded as the principal determining factor of postoperative hyperglycemia.

Archivio Italiano di Chirurgia, Bologna

28: 105-208 (Feb.) 1931

*Anatomoclinical and Anatomohistologic Researches Pertaining to Tumor of Liver (So-Called Perithelioma). B. Baroni.—p. 105.
Influence of Testicular Parenchyma on Process of Cicatrization. V. Marino.—p. 139.
Alkaline Calcium and Phosphorus Reserves in Blood of Animals Following Complete Derivation of Bile. R. Pecco.—p. 163.
Granulomatous Proctitis Due to Vegetatable Residue. F. Fedeli.—p. 175.
Experimental Researches on So-Called Pulmonary Postoperative Collapse. A. Dei Rossi.—p. 193.

Research on Tumor of Liver (So-Called Perithelioma).—Baroni, taking as his point of departure a case of perithelioma of the liver, summarizes the results of researches that have been made from Eberth's time down to the present on the subject of the so-called perithelium. He makes a thorough bibliographic study of blastomas that may be derived from "perithelium." In describing the case that came under his observation, he emphasizes especially the anatomoclinical and the histopathologic manifestations. On the basis of the histologic examinations and the results of modern histologic researches on the reticulo-endothelial system and its blastomatous proliferation, the author assumes that the blastoma in question may have been caused by elements making up the reticulo-endothelial system.

28: 209-336 (Feb.) 1931

*Experimental Researches on Motility of Appendix in Normal and Pathologic Conditions. E. Ragnotti.—p. 209.
Calculosis in Accessory Hepatic Duct, Associated with Cholecystolithiasis. A. Pirrone.—p. 274.
Apparatus for Controlling Pelvis in Operations on Thorax. G. Pototschnig.—p. 299.
Congenital Dilatation of Extrahepatic Bile Ducts. P. L. Badile.—p. 305.
Nephrocolopexy After Method of Gutiérrez. V. Ruiz.—p. 328.

Motility of Appendix.—Ragnotti, after presenting the results of his researches (roentgen, in situ, in vitro) on the motility of the human appendix, and after having shown the significance of such motility in connection with the enteric pathogenesis of appendicitis, describes his experimental researches carried out by a new method of direct observation in vitro with graphic registration of the movements, on a series of fifty-six human appendixes removed at operation. On the basis of his

observations he reaches the following conclusions: The human appendix has no peristaltic movement; the motility with which the appendix is endowed is characterized, even under normal conditions, only by a weak expulsive action on its contents; the activity of the longitudinal musculature alone, although sometimes quite pronounced, does not have, under normal conditions, any expulsive action on the contents; the motility of the appendix may be regarded as rudimentary; although there is no constant relation between the anatomopathologic manifestations and the motility, the appendixes in which the automatic motility is impaired, or even absent, are the ones that become a prey to acute inflammation; not even with the strongest chemical and physical irritants is it possible to provoke expulsive or peristaltic contractions, or contractions of any kind. On the basis of these data, which show that the exchange of contents between the appendix and the cecum, even under normal conditions, is slow and defective, the author concludes that the "functional stagnation" of the appendix may constitute a factor predisposing to inflammation of that organ. The various anatomic causes (both physiologic and pathologic) of stasis would naturally aggravate, when present, the functional stagnation. Only one appendix examined presented the appearance assumed by Kretz as the basis of his hematogenic theory of the origin of appendicitis.

Giornale di Clinica Medica, Parma

12: 157-237 (Feb. 28) 1931

*Relations Between Roentgenogram and Clinical Picture in Pulmonary Tuberculosis. A. Casati.—p. 157.
Reduced Percentage of Glutathione in Blood and in Organs of Guinea-Pig Following Administration of Mercury and Bismuth. C. Negri.—p. 205.

Relations Between Roentgenogram and Clinical Picture in Pulmonary Tuberculosis.—Casati calls attention to three principal causes of error in explanation of the lack of agreement between the clinical and the roentgen observations in pulmonary tuberculosis: (1) absence of complete agreement between the roentgen observations and the pathologic anatomy; (2) absence of agreement between the clinical and the anatomopathologic observations, and (3) a certain fixed nature of the roentgen picture in the sense that the anatomopathologic lesions change slowly in the roentgenogram, more slowly than in the clinical picture. He notes also that the semeiologic examination does not always enable one to discover the real and the true pulmonary changes, many of which, however, are revealed by roentgen examination, which brings out the contrasts between the pathologic and the clinical anatomy.

Policlinico, Rome

38: 105-160 (March 1) 1931. Medical Section

*Hemolytic Anemia with Permanent Hemosiderinuria. E. Marchiafava.—p. 105.
Researches on Spontaneous and Provoked Leukocytolysis in Leukemic Patients. M. Piazza.—p. 116.
Changes in Total Volume of Circulating Plasma in Acute Infectious Diseases. E. Buccianti.—p. 138.

Hemolytic Anemia with Permanent Hemosiderinuria.—Marchiafava describes two cases of a type of anemia that is not well known. It is an anemia with a chronic progressive course, of a hemolytic nature, with permanent hemosiderinuria, which is the characteristic symptom, with recurrent attacks of hemoglobinuria, without splenomegaly, of fatal issue, with the anatomic observation of intense hemosiderosis in the kidneys. From the clinical data, from the inefficacy of splenectomy, and from the anatomic observations, it may be conjectured that the destruction of corpuscles takes place in the vessels of the kidneys.

Riforma Medica, Naples

46: 1817-1856 (Nov. 17) 1931

Arthroplasty in Complete Bony Ankylosis of Both Elbows: Case. L. de Gaetano.—p. 1819.
*Primary Cancer of Thymus: Case. L. d'Antona and G. Buonomini.—p. 1823.
Bilateral Pyelo-Ureterectasis with Reflux from Bladder Caused by Aplasia and Congenital Malformation of Ureters: Case. M. Sorrentino.—p. 1830.
Functional Disturbances of Heart. S. Biondo.—p. 1835.

Primary Cancer of Thymus.—The patient of d'Antona and Buonomini, aged 60, presented a progressive cachectic condition with symptoms indicating disturbances of the digestive tract. He had two large hemorrhages. Symptoms that may be considered as of being of mediastinal origin were absent. Roentgen examinations were not made at advanced periods of the patient's disease. At necropsy a hard tumor of the consistency of bone was found at the internal aspect of the apex of the left lung. The tumor, which was well delimitated from the lung tissues, proved to be a carcinoma. In the liver, many neoplastic nodules of different sizes were found. A diagnosis of cancer of the thymus, of an unusual localization, with metastasis in the liver, was made. The unusual localization of the tumor in this case was the cause of the complete absence of mediastinal symptoms. However, cases of classic malignant tumors in the thymus in which the patients never had mediastinal symptoms and the discovery of the tumor was a surprise at necropsy have been reported. The age and sex of the authors' patient place him in the classic picture of cancer of the thymus, with which men are more frequently affected than women and older men more frequently affected than young men, though rare cases of the disease have been reported in young men (between 25 and 28). Patients with cancer of the thymus as a rule live from six to eight months from the appearance of the first symptoms of the disease, which at that time is in an advanced stage because the first symptoms are not caused by the primary cancer but by the metastases. When cancer of the thymus produces metastases in the spinal cord, a characteristic spinal syndrome develops. The organs most frequently affected by metastases of cancer of the thymus, however, are those more closely related anatomically to it, such as the lung and the pleura. Metastasis to the liver from primary cancer of the thymus has been frequently reported in association with metastases in several other organs. Metastases in the liver alone (as in the authors' patient) is a rare observation. The metastases in the liver were not associated with metastases in the thoracic veins or in the thoracic lymphatic vessels through which the lymph from the thymus passes. The way of propagation of cancer of the thymus to the liver is difficult to understand. A plausible explanation would be the propagation of cancer cells through a hematogenous route, which by finding a proper "soil" in the liver grow there, while the mediastinal lymph nodes are unaffected. From a review of the literature it appears that surgery has not been attempted in the treatment of cancer of the thymus and radiotherapy has given mediocre results.

Rivista di Patologia e Clin. della Tubercolosi, Bologna

5: 85-164 (Feb. 28) 1931

Experimental Researches on Heterologous Tuberculous Reinfection of Skin. C. Panà.—p. 85.
Functional Testing of Islands of Langerhans in Tuberculous Patients. R. Capo.—p. 105.
*Neurosympathetic System and Calcium and Potassium Content of Blood in Pulmonary Tuberculosis. A. M. Bonanno.—p. 121.
Neurosympathetic-Hyposuprarenal Syndrome Resulting Possibly from Abstinence from Smoking. I. Ghibellini.—p. 130.
Ovarian Activity in Relation to Pulmonary Tuberculosis. C. Tenconi and E. Pisoni.—p. 139.

Calcium and Potassium Content of Blood in Tuberculosis.—Bonanno reports that, in sixty cases of pulmonary tuberculosis in various states, studies on the calcium and the potassium content of the blood have not revealed changes commensurate with the gravity of the disease. The study of the neurosympathetic system showed the prevalence of signs of parasympathicosthenia and parasympathicolability and slight reaction of the sympathicus in the first two stages. There were evident signs of asthenia of the two systems in patients in the third stage. No correspondence between the calcium and the potassium content, on the one hand, and the behavior of the neurosympathetic system was observable.

Archivos Argentinos de Pediatría, Buenos Aires

2: 55-101 (Feb.) 1931

Physical Development of School Children in Buenos Aires. C. S. Cometto.—p. 55.
Monstrous Obesity of Unknown Origin in Infant: Case. J. M. Macera, E. Cuillé and M. de la Fuente.—p. 64.
Perinephric Abscess in Infants: Case. B. R. Messina.—p. 69.
*Congenital Absence of Left Pectoralis Muscles in Infant: Case. G. A. Schiavone.—p. 73.
Acute Ascending Spinal Paralysis in Children: Case. A. Puglisi and J. C. Romero.—p. 81.

Congenital Absence of Left Pectoralis Muscles in Infant.—Schiavone reports the case of an infant, aged 1 year,

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with congenital absence of the left pectoralis muscles (major, minimus and minor). The author was unable to find a previous report of a case similar to that of his patient. Cases of this abnormality previously reported presented associated malformations of the muscles or of the bones either of the thorax or of some other part of the body, while the author's patient was otherwise normal, except for the absence of the pectoralis muscles. He had no disturbances of the respiratory tract, the motor functions of his left arm (which had the same shape and size as the right one) were not impaired, and the muscles and bones of his thorax and body were normal. The absence of the pectoralis muscles, as a rule, is unilateral. It does not interfere with the motor functions of the arm; thus it does not limit the activities of the patient. The patient's organism seems to establish a compensation by means of a hyperaction of some other muscles in the region of the shoulder and thorax, especially the deltoid and trapezius muscles. Several theories on the origin of the abnormality, such as mechanical influences suffered by the embryo early during intra-uterine life or the constant contact of the embryo with an imperfectly developed amnion, are reviewed.

Deutsche medizinische Wochenschrift, Berlin

57: 393-436 (March 6) 1931

*Is the Functional Capacity of the Liver Impaired by Syphilis Therapy? K. Zieler.—p. 393.
The X-Y-Method of Statistics for Testing Efficacy of New Therapies, with Especial Consideration of Calmette's Tuberculosis Vaccination. F. Bernstein.—p. 397.
Cause of Toxicity of Methyl Alcohol. E. Keeser.—p. 398.
Etiology and Therapy of Gastric Ulcer. P. Siebert.—p. 399.
Changes in Foot Skeleton of Athletes Visible in Roentgenogram. W. Knoll.—p. 401.
*Infraroentgen Ray Therapy of Skin Diseases. F. Blumenthal and L. Böhmer.—p. 404.
Psychic and Economic Disadvantages of Nontuberculous Inmates of Institutions for Tuberculous Patients. J. W. Samson.—p. 406.
Indicanuria. C. Moewes.—p. 407.
Tetany-Like Convulsions of Traumatic Origin. A. Szarvas.—p. 408.
Negative Wassermann and Turbidity Reactions. R. Nathan.—p. 408.
An Unusually Large Ureteral Calculus. W. Grossmann.—p. 409.

Functional Capacity of Liver During Syphilis Therapy.—Zieler studied to what extent the function of the liver is influenced by syphilis or by syphilis therapy. Ninety-seven syphilitic patients undergoing arsphenamine, bismuth or mercury treatments were subjected to various tests before, during and after the treatment. The tests were of four types: (1) examination of the hepatic function without any intervention, such as determination of the urobilinogen in the urine and of the bilirubin in the blood; (2) bilirubin tolerance test; (3) tolerance tests with foreign substances such as tetrachlorphenolphthalein, and (4) Volhard's water tolerance test. The regular control of the liver function in the course of syphilis therapy has proved that the intensive treatment with arsphenamine and bismuth or with mercury, as it is now practiced, rarely causes functional disturbances of the liver, and if it does, the disorders are only slight and of short duration. In rare cases, complications may arise from a hypersusceptibility to the medicaments. The slight hepatic disturbances that develop in the course of syphilis therapy are much less severe than those hepatic disorders that develop if syphilis is not treated. It was noted that in cases in which syphilis was complicated by other diseases, such as gonorrhea, and in instances in which malariotherapy or specific treatment of gonorrhea became necessary, disturbances of the liver were more frequent. These disturbances became manifest in the positive reactions of one or several of the functional tests. Positive reactions of several tests is a grave sign, even if there are no clinical signs of an hepatic disturbance. The author comes to the conclusion that the control of the liver function in the course of the syphilis therapy is of great significance and should be done in all hospitals. In evaluating the various tests he states that the determination of the urobilinogen in the urine is the most significant, and, because this test is at the same time extremely simple, it can be performed by the general practitioner.

Infraroentgen Ray Therapy of Skin Diseases.—Blumenthal and Böhmer first discuss the nature of infraroentgen (grenz) rays. Compared with the roentgen rays the infraroentgen or border rays have only a slight penetrative power, so that the largest portion of the irradiation is absorbed by the upper layers of the skin. It is pointed out that Bucky, who first recommended the use of these rays, emphasized their harmlessness. But because it is necessary to apply much larger doses than is necessary in roentgen irradiation in order to obtain therapeutic results, the relative harmlessness is partly nullified. The authors further direct attention to the difficulties that are encountered in the dosage of the infraroentgen rays. They found that the erythema which is produced by the rays, in the majority of cases disappears after several days, without causing other results than an intense pigmentation, which requires a longer period for regression and which for this reason is of disadvantage especially if the face is involved. Occasionally, however, erythemas develop which cause severe, subjective disturbances and their healing requires several weeks. In regard to the therapeutic effects of infraroentgen rays, the authors state that in superficial dermatoses (eczema, psoriasis and so on) in which the infiltrates were not deep, the same results were obtained as are effected with roentgen surface irradiation, only the process was somewhat slower. In cases with deeper infiltrations, however, the efficacy of infraroentgen rays did not reach that of roentgen rays unless the erythema dose was far exceeded and injurious effects had to be feared. In lupus, in tuberculosis verrucosa and in mycosis fungoides, favorable results were obtained with infraroentgen ray therapy. The authors think that there are no essential differences between the action of infraroentgen rays and that of roentgen rays. The differences are only quantitative; namely, in the penetrative power and the absorption. It is true that in infraroentgen treatment the largest portion of the radiation is absorbed by the superficial layers of the skin, but a part penetrates to the cutis and to the subcutis and here exerts the same influences as ordinary roentgen rays. Nevertheless the authors recognize that the infraroentgen rays represent an essential enrichment of therapeutic resources, whenever it is desirable to prevent deep penetration. They are especially helpful in the treatment of dermatoses in which the hair follicles are to be spared or in which roentgen susceptible tissue (parotid, generative glands) are involved. Another advantage is that in extensive dermatoses it is possible to prevent such secondary reactions as roentgen intoxications. The therapeutic effects of the infraroentgen rays are not exceptional and not superior to those obtainable by ultraviolet irradiation.

Münchener medizinische Wochenschrift, Munich

78: 343-390 (Feb. 27) 1931

Heterologous Sex Hormone and Hormonal Sterilization of Male Organism in Animal Experiments. W. Reiprich.—p. 343.
Time of Conception Capacity in Women. H. Knaus.—p. 344.
Prevention of Conception. H. Albrecht.—p. 347.
Action of Cutaneous Stimulants and of Massage. F. Hoff.—p. 350.
Modern Therapy of Lead Poisoning. Teleky.—p. 354.
*Experiences with High Voltage Roentgen Irradiation According to Coutard in Malignant Growths. H. Sielmann.—p. 360.
Treatment in Fractures of Foot with Backward Dislocation. M. Lange.—p. 365.
*Evaluation of Subjective Complaints and of Objective Symptoms in Diagnosis of Gastric and Duodenal Ulcer. T. Weiss.—p. 366.

High Voltage Irradiation in Malignant Tumors.—Sielmann first shows how Coutard's method of high voltage roentgen irradiation differs from other methods of irradiation. The advantages of this method are that the extremely hard rays, which are applied from a considerable distance, tax the skin only slightly and irreversible cutaneous injuries are thus prevented, and that the daily irradiations, for several weeks, make it possible that during every irradiation a different portion of the tumor cells, which are in the process of division, is attacked, and thus a larger percentage of the radiosensitive cells is destroyed. The most striking aspect of the treatment is that patients show almost no cutaneous reactions, in spite of the fact that, in the course of from three to four weeks, from five to seven times the unit skin dose has been applied on each field. Only palliative results were obtained, but nevertheless the method represents a considerable progress in the treatment of inoperable carcinomas.

Diagnosis of Gastric and Duodenal Ulcer.—The clinical histories of eight patients, which Weiss reports, indicate that gastric and duodenal ulcers may present symptoms that are not

at all characteristic for these disorders. The fact that the eight cases are nearly one third of the total number of gastric or duodenal ulcers which came under his observation during the last year shows that the atypical cases are not rare. The correct diagnosis was made in all instances with the aid of roentgen examination. Of course there are also gastric ulcers that cannot be detected by roentgen examination. Especially the new and superficial ulcers are often unrecognizable in the roentgenogram, but the author is of the opinion that these new ulcers usually present the typical symptoms. In cases in which the results of roentgen examination are not convincing, the anamnesis and all clinical diagnostic methods are of primary importance.

Zeitschrift für klinische Medizin, Berlin

115: 329-646 (Feb. 12) 1931

Functioning of Biliary Tract in Cholelithiasis: V. Formation of Bilirubin Concretions from Stasis. K. Westphal, F. Gleichmann and W. Mann.—p. 329.
Id.: VI. Influence of Sympathetic Irritation on Gallbladder Resorption. K. Westphal and F. Gleichmann.—p. 372.
Id.: VII. Researches on Experimental Formation of Concretions. K. Westphal and F. Gleichmann.—p. 407.
*Pathology and Treatment of Cholelithiasis. K. Westphal.—p. 420.
*Action of Atropine on Extrahepatic Biliary System. A. Grebe.—p. 446.
Obesity Associated with Disturbance of Intermediary Metabolism. B. Kugelmann.—p. 454.
Relation Between Muscular Spasms and Blood Changes in Uremia. H. A. Salvesen.—p. 522.
Electrocardiographic Study of Myocardiac Changes from Rheumatic Infection. D. Grotel.—p. 529.
Changes in Blood Volume Caused by Pharyngeal Diphtheria. W. Grunke.—p. 546.
Cardiodiaphragmatic Symptoms and Collection of Air on Hypochondrium. S. J. Lurjé and B. M. Stern.—p. 552.
Nature of Angina Pectoris. G. J. Katz.—p. 570.
Study of Cerebral Blood in Hypertonia. W. Raab.——p. 577.
*Conservative Treatment of Empyema. T. Hausmann.—p. 582.
*Method for Determination of Blood-Clot Retractility. G. Czoniczer and S. Weber.—p. 604.
Influence of Saliva on Gastric Secretion. H. Bendixen and A. Angelowa.—p. 612.
Development and Localization of Edema in Cardiac and Renal Diseases. J. Seitz.—p. 623.

Pathology and Treatment of Cholelithiasis.—Westphal considers that retention of bile and the formation of a calculus in the gallbladder is due to an impairment of contractions or to an exaggerated concentration of the bile resulting from an increased resorption and increased secretion by the gallbladder mucosa. This may occur without the participation of bacteria. First calcium and bilirubin are eliminated from the concentrated bile; then cholesterol collects on the bilirubin deposit. Shifting of the soluble salts to acidity and accumulation of mucus are contributory factors. An insignificant infection, without leading to inflammation of the gallbladder, is able to promote a deposit of bilirubin in an engorged gallbladder. Inflammation of the bile ducts is caused by the presence of a calculus. Of Westphal's ten patients with biliary calculi, inflammation of the gallbladder was found in three; in three the inflammation was dubious and in four it was absent. The pathologico-anatomic changes consisted in hypertrophy of the gallbladder, especially of its neck, explained by irritation from a calculus. Westphal warns against the danger of an early operation; he had observed cases of pancreatitis following an early removal of the gallbladder. An obstruction of the common bile duct ought to be first treated by duodenal irrigations with magnesium sulphate solution; later, with subcutaneous injection of 1 cc. of solution of pituitary followed by irrigation with 40 cc. of olive oil or with intramuscular injection of 0.04 Gm. of papaverine. The treatment may result in elimination of small calculi, chiefly in cases of chronic inflammation and enlargement of the common bile duct. An operation is necessary in cases of suppurative cholecystitis without perforation; choledochoduodenostomy is indicated when the choledochus is considerably enlarged. In cases complicated by changes of the hepatic parenchyma, intravenous injections once or twice a day of 40 cc. of a 20 to 40 per cent solution of dextrose mixed with 10 units of insulin are suggested. Intense colic is relieved with atropine given up to 0.003 Gm. a day; or 0.03 Gm. of extract of belladonna is mixed with 0.03 or 0.04 Gm. of codeine and given by mouth or in a suppository. Morphine is used exceptionally; 0.02 Gm. of morphine is then added to 0.001 Gm. of atropine. Menthol in peppermint tea may relieve exaggerated contractions of the bile ducts; in cases of a coexisting obstipation, a vegetable purgative together with 0.0005 or 0.001 Gm. of atropine or one or two tablespoonfuls of olive oil is given in the evening. Patients with chronic cholangeitis with secondary changes in the liver are given Carlsbad mineral water in the morning, atropine during the day and olive oil with peppermint tea in the evening.

Action of Atropine on Functioning of Extrahepatic Biliary Passages.—Duodenal intubation and cholecystography were used by Grebe for testing the action of atropine on the bile ducts in man. Without the administration of atropine, bile could not be obtained from the gallbladder during a few hours following evacuation of the bile with the tube. After administration of 1 or 1.5 mg. of atropine, the gallbladder appeared filled with bile during that time; the amount and the concentration of the bile increased. Evidently under the influence of atropine the passage of bile into the gallbladder is more rapid and more complete. The results were confirmed on cholecystographic examination; thus the shadow of the gallbladder appeared larger and more intense about five hours after oral administration of atropine. Evacuation of the bile was arrested as long as the action of atropine continued; use of stimulating remedies proved to be then without avail. Sometimes a sudden escape of bile occurred as the result of a "spontaneous contraction." After four or five hours an enhanced evacuation of the bile appeared; this was evident in cases in which there was an impaired evacuation of the bile (ulcer, dyskinetic disturbances of the gallbladder). Again the results agreed with those of cholecystographic examination. The author emphasizes the practical value of his researches.

Conservative Treatment of Empyema.—Hausmann's experience includes twenty-seven cases of empyema, twenty-one of which were caused by streptococci and one by *Bacterium mucosum-capsulatum;* bacteria were not detected in five. Five patients with a streptococcus empyema were treated by repeated punctures; four of them recovered, and one with a bilateral empyema died. Of twenty-two patients treated with siphon drainage, nineteen (among them one with a bilateral empyema) recovered. In three instances the drainage treatment was completed by an operation. The conservative treatment is being continued in a case of cholesterol empyema; the patient is on the way to recovery. The drainage treatment should be followed by surgical intervention when evacuation of the pus is hindered by the presence of fibrinous masses or when there is encapsulation of the lungs, cirrhotic shrinking with displacement of the heart, pleuropulmonary fistula or interlobular exudate. The healing is accelerated by daily irrigations with physiologic solution of sodium chloride. The irrigations ought to be given carefully; only a small amount of the solution, given under moderate pressure, is indicated for irrigations. A permanent aspiration is superfluous. The drainage or puncture treatment is recommended in cases of a closed pyoneumothorax, while in cases of open or valvular pneumothorax only a careful puncture treatment is to be considered.

Method for Determination of Retractility of Blood Clots.—Czoniczer and Weber use the following method: To the blood plasma is added a sodium citrate solution and the mixture is then centrifugated for five minutes. Within this time sedimentation of the red and white blood corpuscles, and suspension of the thrombocytes in the upper layer of the plasma occur. The upper layer is removed and used for testing, after it has been treated with a calcium chloride solution. The retraction time is counted from the beginning of coagulation up to the moment when the upper layer of the plasma is no more changed when the test tube is shaken. In order not to injure the clot while it is removed it is suggested to boil the test tube previously in a solution of sodium hydroxide, then thoroughly rinse in distilled water and place in an incubator. In a tube thus prepared the adherence of the clot to the tube wall is extremely reduced. The clot is removed with thin tweezers forty minutes after the coagulation appears to be complete. The tests are made at a temperature of 20 or 22 C. The errors connected with injury to the clot occasioned by its isolation and loss of a few drops of serum during its removal are insig-

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nificant. The authors consider the method as more exact than any other used heretofore. The details of the method are given.

Zentralblatt für Chirurgie, Leipzig

58: 577-640 (March 7) 1931

Experiences with Active Movement in Treatment of Suppuration of Knee Joint (Willems Method). M. Kappis.—p. 579.
Shape of Acetabulum in So-Called Congenital Dislocation of Hip Joint. K. Gaugele.—p. 582.
Fatalities After Operative Treatment of Exophthalmic Goiter. Orth. —p. 585.
*Reinfusion of Blood in Case of Gunshot Injury of Liver. B. Herzberg. —p. 587.
Use of Indigo Carmine and of Nupercaine in Urology. O. Portwich. —p. 590.
Cullen's Sign in Pancreatic Apoplexy. E. Stutzer.—p. 597.
Use of Solution of Secondary Butylbrompropenylbarbituric Acid for Basal Anesthesia. E. Boerner.—p. 598.
Total Resection of Stomach with Direct Anastomosis of Esophagus with Duodenum. H. von Haberer.—p. 599.

Reinfusion of Blood in Case of Gunshot Injury of Liver.—Herzberg points out that the question whether in injuries of the liver, when the blood from the liver becomes mixed with bile from the ruptured bile ducts, a reinfusion of the blood is permissible has as yet not been decided. The same author who proved in experiments that the reinfusion of blood from the portal vein had no ill effects found that reinfusion of blood in patients with injuries of the liver resulted in a high mortality. This high mortality rate may of course be due to the seriousness of the cases. Herzberg reports the case of a youth, aged 17, who was brought to the clinic with a gunshot injury of the liver. In spite of the severity of the injury the patient was saved by early operative treatment and by the reinfusion of the blood. The autotransfusion had no ill effects whatever. It is probable that the favorable outcome was mainly due to the fact that the operation and transfusion were done soon after the trauma. Only one hour elapsed between injury and surgical intervention. It was not possible to stop the hemorrhage by means of transplantation of a resected piece of the omentum ("living tampon") but it was necessary to combine this method with the suturing of the duodenum to the wound.

Zentralblatt für Gynäkologie, Leipzig

55: 513-576 (Feb. 28) 1931

Hormone of Corpus Luteum and Its Specific Test Object. E. Fels.—p. 514.
Reaction of Uterus of Rabbits Under Influence of Corpus Luteum and of Hypophyseal Hormones, Different from Reaction of Uterus of Rats, Mice and Guinea-Pigs. H. Siegmund and F. Kammerhuber.—p. 521.
*Prognosis and Therapy of Puerperal Fever. L. van Damme.—p. 523.
Technic of Curettage of Uterus After Abortion. A. Rieck.—p. 529.
Frequency of Spontaneous Abortion and Its Significance in Study of Artificial (Especially Illegal) Abortion. M. I. Magid.—p. 531.
*Fatality After Hysterography Caused by Oil Embolism. E. Gajzágó. —p. 543.
Metastatic Chorio-Epithelioma Diagnosed by Means of Aschheim-Zondek's Reaction. F. Gerritzen.—p. 545.

Prognosis and Therapy of Puerperal Fever.—Van Damme first discusses the significance of the Ruge-Phillipp test for the prognosis in puerperal fever. He concludes that when the test is positive the morbidity and mortality rates are especially high. Of thirty-seven patients with a positive reaction, twenty-nine showed a grave clinical condition. A negative virulence reaction, however, excludes serious infectious complications. On the other hand, there are among the positive cases a certain number in which the clinical course does not correspond to the outcome of the test, and therefore a positive virulence reaction does not always justify an unfavorable prognosis. For this reason the author adopted the modification of the Ruge-Phillipp test recommended by Daels. The difference in the bactericidal power of the blood of puerperas, which can be detected by this method, raises the question whether it would be advisable to inject blood from persons with high bactericidal power into puerperas with low bactericidal power. He thinks that such blood transfusions are advisable.

Fatality After Hysterography Caused by Oil Embolism.—Gajzágó describes the clinical history of a woman, aged 60, who for six weeks had had genital hemorrhages. In order to verify the diagnosis, hysterography was resorted to. Under a maximal pressure of 80 mm. of mercury, 8 cc. of iodized sesame oil 40 per cent was injected. Following the injection the patient lost consciousness and after several hours died. From the results of the necropsy, he thinks that the oil embolism was the result of an injury of a vein during injection. This had the effect that a large portion of the oil was brought directly into the blood stream. The quantity of oil may also appear abnormally large, since as a rule only from 2 to 3 cc. is injected; however, in this case the uterus was abnormally large, and reports in the literature indicate that other workers have injected even larger quantities. The author concludes that hysterography should be done with the greatest care, that no more than from 3 to 5 cc. of iodized sesame oil should be injected, and that the pressure of from 60 to 80 mm. of mercury should not be exceeded.

55: 577-640 (March 7) 1931

*Exophthalmic Goiter and Pregnancy. H. Küstner.—p. 578.
Practical Value of Manoiloff's Pregnancy Reaction. P. Goldschmidt-Fürstner.—p. 586.
Differences in Outcome of Serodiagnosis for Gonorrhea According to Site of Withdrawal of Blood. J. Schwarz.—p. 592.
Ruge-Phillip's Test for Detection of Virulence of Bacteria. M. J. Litwak.—p. 600.
After-Operations Following Ventrifixations. R. Vorster.—p. 609.
Unilateral, Tubal, Uniovular Twin Pregnancy with Fetuses Thirty Centimeters in Length. H. Deichgräber.—p. 611.
Bilateral Tubal Pregnancy. E. Mayer.—p. 613.
Idem. A. G. Issachanow.—p. 615.

Exophthalmic Goiter and Pregnancy.—Küstner asserts that the function of the thyroid during pregnancy is still subject to controversy. His observations on two gravidas, aged 23 and 25, may throw light on the relation between thyroid function and gravidity. Both of them had exophthalmic goiter for years, so severe that one patient had become unable to work and the other had undergone an operation, which had not been successful. The fear that the pregnancy might aggravate the hyperthyroidism proved groundless. At the beginning of the gestation the patients felt poor and were troubled with hyperemesis, but at about the middle of the pregnancy term they improved markedly. Although the general condition of both women improved, hyperthyroidism still existed, both women carried their fetuses over term and the uterine contractions were weak. These abnormalities are considered the result of the hyperfunctioning of the thyroid, because the action of the thyroid is antagonistic to the function of the posterior lobe of the hypophysis. The author concludes that during pregnancy, especially toward the end of the term, the functioning of the thyroid decreases. In healthy gravidas this does not cause disturbances; in women with hyperthyroidism it has the effect that the hyperfunctioning is partly counteracted and thus their condition improves; in women with hypothyroidism, however, exacerbation is the result.

Nederlandsch Tijdschrift voor Geneeskunde, Haarlem

75: 973-1092 (Feb. 28) 1931

Various Vaccines for Active Immunization Against Diphtheria. H. Aldershoff.—p. 974.
*Sepsis in Connection with Childbirth and Miscarriage. B. C. Hopman. —p. 981.
Methods, Indications and Technic in Treatment of Hypertrophy of Prostate. J. B. Kruimel.—p. 999.
*Treatment of Multiple Stones of Urinary Passages. T. Reddingius.—p. 1007.
Case of Unconscious Childbirth. M. A. van Bouwdijk Bastiaanse.—p. 1016.

Sepsis in Connection with Childbirth and Miscarriage.—Hopman brings out that in every case of gynecologic sepsis a positive blood smear is found, if more than one smear is made. A second smear is, however, seldom necessary. The diagnosis and prognosis of gynecologic sepsis can be established more quickly and more accurately by the bacteriologic than by the clinical route. There is a clinicobacteriologic and a pathologic anatomic connection in the various forms of gynecologic sepsis. The Ruge-Phillipp test, supplemented by the Daels test, is a valuable aid in determining the prognosis of gynecologic sepsis. The transfusion of blood of high bactericidal potency is the best treatment in septic conditions.

Treatment of Multiple Stones of Urinary Passages.—Reddingius discusses, on the basis of forty cases, how patients should be treated who, in addition to a bladder stone, have stones in the kidney or ureter. The experience that he has gained from the operation on and the after-treatment of these

patients leads to the conclusion that the best method, ordinarily, is to remove all stones at one sitting. In the contemporaneous occurrence of bladder stones and ureteral stones, there are, however, circumstances depending on position of the stone and degree of infection of the urinary passages that justify making an exception to this rule.

75: 1093-1244 (March 7) 1931

Coma Hepaticum. A. A. Hijmans van den Bergh.—p. 1094.
Standardization of Vitamin D Preparations. J. W. R. Everse and J. van Niekerk.—p. 1101.
Ringworm and Vitamin A. F. C. Kuipers.—p. 1108.
*Dermatitis Polymorpha Dolorosa (Duhring-Brocq) Following Vaccination and with Encephalitic Secondary Manifestations. M. Ruiter.—p. 1121.

Dermatitis Polymorpha Dolorosa Following Vaccination.—Ruiter reports a peculiar case of dermatitis polymorpha dolorosa Duhring-Brocq in a factory workman, aged 54. A short time previous to the appearance of the dermatitis on the thighs, and later on the arms and chest, the patient had been revaccinated against smallpox, the reaction to which was severe for three days. That vaccination may be the cause of a dermatosis is well known (psoriasis, urticaria), but only one case is reported in the literature in which dermatitis polymorpha Duhring-Brocq was caused by smallpox vaccination, though Sutton in his textbook mentions this mode of origin. A second peculiarity was the cerebral symptoms. Whether it was a case of epidemic encephalitis could not be shown definitely. Clinically, it is true, the symptoms pointed in that direction. It is not impossible, however, that there was a connection between the symptoms of a nervous nature and the original skin manifestations—that, in fact, the former were caused by the latter. The author discusses here the various theories that have been proposed in explanation of the dermatitis—for instance, some have suggested autotoxins. It is significant that the encephalitis symptoms corresponded, as the disorder developed, with the severity of the skin manifestations and that they disappeared when the skin condition cleared up. The author cites Levaditi and Poincloux, who, in a case of dermatitis Duhring-Brocq, inoculated the content of the fresh herpes-like vesicles, the cultures of which were sterile, into the corneas of rabbits and in some cases subdurally. In two cases, the animals died under acute symptoms and with distinct manifestations of meningitis and encephalitis. Also inoculations of the content of vesicles into the skin produced skin reactions, although there was no typical vesicle formation. The investigators concluded that possibly the etiology of dermatitis Duhring-Brocq must be sought in an ectodermoneurotropic virus. Ruiter cites also a recent article by Urbach and Reiss, who injected blood serum of patients in the beginning stage of dermatitis Duhring-Brocq intravenously, subcutaneously or intracranially into rabbits, with the result that some died and some developed symptoms of paralysis, while, in various portions of the brain, infiltrates, foci of infection and hemorrhages were found. The same results were obtained when, in place of blood serum, the serous content of the vesicles was injected. These investigators conclude from their researches that dermatitis Duhring-Brocq has an infectious and toxic etiology.

Hospitalstidende, Copenhagen

74: 1-44 (Jan. 1) 1931

*Leukoplakia and Kraurosis of Penis. V. Genner and J. Nielsen.—p. 1.
Eighth International Dermatologic Congress at Copenhagen, August 5-9, 1930. H. Boas.—p. 30.
*Value of Determination of Blood Types in Paternity Cases When Mother's Type is Unknown. O. Thomsen.—p. 33.
*Familial Occurrence of Leukosis. S. Petri.—p. 38.

Leukoplakia and Kraurosis of Penis.—Genner and Nielsen report three cases, recently observed, of leukoplakia and kraurosis of the penis, in the first of which the leukoplakia appeared at the age of 15. Most of the fifty cases of leukoplakia found by them in the literature are cited.

Determination of Blood Types in Paternity Cases When Mother's Type is Unknown.—Thomsen tabulates the combinations of father and child in which, without knowledge of the mother's type, (1) it can be said that the man can be the father of the child, (2) that he cannot be the father, and (3) no answer as to possible paternity can be given. According to the theoretically computed frequency of the various combinations, indicated both by listing A and AB types as entities and by dividing these types into A^1 and A^2, about two thirds of the cases allow a definite answer (1 or 2).

Familial Occurrence of Leukosis.—Petri presents two cases of chronic lymphatic leukemia in middle-aged brothers and reviews the previously reported cases of leukosis in the same family. He concludes that the occurrence of this condition in the two patients is an isolated phenomenon, but the possible significance of an hereditary factor in the origin of the disease is uncertain.

74: 45-72 (Jan. 8) 1931

*Contribution to Casuistics of Paget's Osteitis Deformans. O. Ramlau-Hansen.—p. 45.
*Cervical Sympathectomy in Angina Pectoris. E. Petersen.—p. 61.
Case of Spontaneous Pneumothorax Without Real Fever Reaction or Exudate. C. J. Jacobson.—p. 67.

Osteitis Deformans.—In the first of the two cases reported the subjective symptoms were mild and after six years the disturbance is still limited to the right tibia. In the second case, with marked pain, the disorder first affected the right tibia, then the left, and is now, after two years, becoming generalized. The original diagnosis was syphilis in the first case, malignant tumor formation in the second. Microscopic examination following exploratory trepanation, in both cases done early, failed to show any characteristic changes. Ramlau-Hansen emphasizes that because of the difference in the clinical picture in Paget's osteitis deformans and in von Recklinghausen's osteitis fibrosa the two diseases should clinically be considered as two distinct entities.

Cervical Sympathectomy in Angina Pectoris.—In Petersen's case in a woman, aged 46, cervical sympathectomy, done according to Jonnesco, was well borne and gave good results.

74: 73-100 (Jan. 15) 1931

Apparatus for Photographic Registration of Blood Pressure and Oscillograms. A. Eldahl.—p. 73.
*Primary Carcinomas in Extrahepatic Bile Ducts. O. Ramlau-Hansen.—p. 82.

Primary Carcinomas in Extrahepatic Bile Ducts.—This review by Ramlau-Hansen is based on nine personal cases.

74: 101-128 (Jan. 22) 1931

Tuberculous Infection and Tuberculous Morbidity Among Nurses. C. H. Würtzen.—p. 101.
*Dietetic Treatment of Hyperthyreosis. K. O. Møller.—p. 124.

Dietetic Treatment of Hyperthyreosis.—Møller found that the effect of experimental hyperthyreosis in rats was particularly well counteracted by a diet rich in fat and albumin, containing large quantities of vitamins, especially vitamins A and B, together with the necessary salts, and with the addition of calcium lactate. Muscle protein has an injurious effect and must be avoided.

74: 129-156 (Jan. 29) 1931

*Esthiomene of Vulva: Etiology. P. Damm.—p. 131.
Osteosynthesis with Resorbable Material in Rabbits and Guinea-Pigs. E. Dahl-Iversen.—p. 143.

Esthiomene of Vulva.—Damm says that this case, which was accompanied by rectal fissure and fistulas, was due to inguinal lymphogranuloma. Treatment was limited to electrocoagulation and curettage of the granulation masses in the vulva and vagina. He regards esthiomene as a symptom complex caused by pathologic conditions of the regional lymph nodes, leading to a local blocking of the lymph and lowering of the resistance of the tissues.

Ugeskrift for Læger, Copenhagen

93: 147-168 (Feb. 12) 1931

*Viosterol in Rickets and Tetany. E. Gjørup.—p. 147.
Portable Roentgen Apparatus. J. Fabricius-Møller.—p. 155.
Myopathia Infraspinata. G. Wiltrup.—p. 157.

Viosterol in Rickets and Tetany.—In Gjørup's twenty-two cases of children with rickets or tetany, or both, treatment with viosterol resulted in an increase in the calcium and the phosphorus content of the blood, normal values being attained in most cases during the course of the first two weeks. He compares earlier methods of treating rickets and tetany and treatment with viosterol, and speaks of the toxicity of the viosterol.

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